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Scientific & Technical Information Center

# Search Report
EIC 1700

## STIC Database Tracking Number: 249393

**To: AMINA KHAN**
**Location: REM-9A49**
**Art Unit: 1796**
**Monday, January 28, 2008**

**Case Serial Number: 10/529744**

**From: MEI HUANG**
**Location: EIC1700**
**REM-4B28 / REM-4B31**
**Phone: (571)272-3952**

**mei.huang@uspto.gov**

## Search Notes

Examiner KHAN:

Please feel free to contact me if you have any questions or if you would like to refine the search query. Thank you for using STIC services!

Regards,
Mei

sira
Search and Information Resources Administration

# STIC Search Results Feedback Form

## EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher or contact*:

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

## Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 1713*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

*Types of relevant prior art found:*

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art **not found**:*
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

**Drop off or send completed forms to EIC1700 REMSEN 4B28**

```
=> fil reg
FILE 'REGISTRY' ENTERED AT 11:30:49 ON 28 JAN 2008
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STRUCTURE FILE UPDATES:   27 JAN 2008  HIGHEST RN 1000849-38-6
DICTIONARY FILE UPDATES:  27 JAN 2008  HIGHEST RN 1000849-38-6

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http://www.cas.org/support/stngen/stndoc/properties.html

=> d que stat l14
L11             SCR 2043
L12             SCR 1838
L13             STR

C~~O~Ak—OH
1   2   3   4


NODE ATTRIBUTES:
CONNECT IS E2  RC AT   3
DEFAULT MLEVEL IS ATOM
GGCAT   IS SAT  AT   3
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   4

STEREO ATTRIBUTES: NONE
L14       34069 SEA FILE=REGISTRY SSS FUL L13 AND L11 NOT L12

100.0% PROCESSED  200545 ITERATIONS                    34069 ANSWERS
SEARCH TIME: 00.00.02


=> d his nofile

     (FILE 'HOME' ENTERED AT 09:31:08 ON 28 JAN 2008)

     FILE 'HCAPLUS' ENTERED AT 09:31:18 ON 28 JAN 2008
L1             1 SEA ABB=ON  PLU=ON  US2007022541/PN
                 SEL RN

     FILE 'REGISTRY' ENTERED AT 09:31:36 ON 28 JAN 2008
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L2          14 SEA ABB=ON  PLU=ON  (1344-09-8/BI OR 25087-26-7/BI OR
               25549-84-2/BI OR 26677-99-6/BI OR 302-01-2/BI OR
               3483-12-3/BI OR 68-11-1/BI OR 681854-09-1/BI OR 681854-10
               -4/BI OR 681854-12-6/BI OR 681856-07-5/BI OR 7803-49-8/BI
                OR 9002-98-6/BI OR 9005-25-8/BI)
               D SCA

    FILE 'LREGISTRY' ENTERED AT 09:47:40 ON 28 JAN 2008
L3         329 SEA ABB=ON  PLU=ON  "(C2H4O)"

    FILE 'REGISTRY' ENTERED AT 09:50:19 ON 28 JAN 2008
L4      116878 SEA ABB=ON  PLU=ON  "(C2H4O)"
L5       32405 SEA ABB=ON  PLU=ON  L4 NOT NR>=1
L6       12678 SEA ABB=ON  PLU=ON  L5 AND NC=1
L7        4942 SEA ABB=ON  PLU=ON  L6 NOT P/ELS NOT S/ELS NOT N/ELS NOT
               SI/ELS
L8        4280 SEA ABB=ON  PLU=ON  L7 NOT X/ELS
L9        6358 SEA ABB=ON  PLU=ON  L6 AND ?HYDROXY?/CNS
L10       1838 SEA ABB=ON  PLU=ON  L9 AND ?ETHER?/CNS
               ACT ASD578/A
              ---------
L11            SCR 2043
L12            SCR 1838
L13            STR
L14      34069 SEA SSS FUL L13 AND L11 NOT L12
              ---------
L15       1676 SEA ABB=ON  PLU=ON  L8 AND L14
L16        372 SEA ABB=ON  PLU=ON  ?DIMERCAPTO?/CNS OR ?DITHIOL?/CNS
L17      91759 SEA ABB=ON  PLU=ON  ?DIMERCAPTO?/CNS OR ?DITHIOL?/CNS
L18          1 SEA ABB=ON  PLU=ON  L2 AND L17
               D SCA
L19         44 SEA ABB=ON  PLU=ON  C4H10S2/MF
L20         14 SEA ABB=ON  PLU=ON  L17 AND L19
               D SCA
L21          1 SEA ABB=ON  PLU=ON  L20 AND  1,4-BUTANE-2,2,3,3-D4-DITHIO
               L/CN
L22          1 SEA ABB=ON  PLU=ON  L20 AND 1,4-BUTANEDITHIOL/CN
L23          1 SEA ABB=ON  PLU=ON  L20 AND "1,4-BUTANEDITHIOL, RADICAL
               ION(1+)"/CN
L24          3 SEA ABB=ON  PLU=ON  (L21 OR L22 OR L23)
L25       3010 SEA ABB=ON  PLU=ON  L17 NOT NR>=1
L26       1950 SEA ABB=ON  PLU=ON  L25 AND NC=1

    FILE 'LREGISTRY' ENTERED AT 11:01:28 ON 28 JAN 2008
L27            STR

    FILE 'REGISTRY' ENTERED AT 11:05:59 ON 28 JAN 2008
L28         25 SEA SSS SAM L27
L29            SCR 2043
L30         13 SEA SSS SAM L27 NOT L29
L31            SCR 1838 OR 1992 OR 2016 OR 2021 OR 2026 OR 1929 OR 1918
L32         50 SEA SSS SAM L27 NOT L31
L33            STR L27
L34          0 SEA SSS SAM L33
L35          3 SEA SSS SAM L33 NOT L31
               D SCA
L36          0 SEA SSS SAM L33 NOT L29
               D IDE L35 1
L37          1 SEA ABB=ON  PLU=ON  111-30-8/RN
               D SCA
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     FILE 'HCAPLUS' ENTERED AT 11:18:22 ON 28 JAN 2008
L38        37517 SEA ABB=ON  PLU=ON  POLYELECTROLY? OR POLY(A)ELECTROLY?
L39          454 SEA ABB=ON  PLU=ON  L24
L40            2 SEA ABB=ON  PLU=ON  L38 AND L39
L41        19153 SEA ABB=ON  PLU=ON  L26
L42           34 SEA ABB=ON  PLU=ON  L38 AND L41   A+B
L43       131317 SEA ABB=ON  PLU=ON  L15
L44            4 SEA ABB=ON  PLU=ON  L42 AND L43
                D HITSTR 1
L45        70528 SEA ABB=ON  PLU=ON  L17
L46           34 SEA ABB=ON  PLU=ON  L40 OR L42
L47          102 SEA ABB=ON  PLU=ON  L45 AND L38   A+B
L48           10 SEA ABB=ON  PLU=ON  L47 AND L43   A+B+C
L49           10 SEA ABB=ON  PLU=ON  L48 OR L44
L50        11914 SEA ABB=ON  PLU=ON  L37
L51            0 SEA ABB=ON  PLU=ON  L49 AND L50   A+B+C+D


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 substance identification.

=> d l46 ibib abs hitstr hitind 1-38

L46  ANSWER 1 OF 34  HCAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2007:1334601  HCAPLUS
DOCUMENT NUMBER:          147:548257
TITLE:                    Polymeric hydrogel nanocomposites for ophthalmic
                          applications
INVENTOR(S):              Ravi, Nathan
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 27pp., Cont.-in-part of
                          U.S. Ser. No. 706,081.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   3
```

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2007269488 | A1 | 20071122 | US 2007-574667 | 20070405 |
| US 2004156880 | A1 | 20040812 | US 2003-706081 | 20031113 |
| WO 2005023331 | A2 | 20050317 | WO 2004-US28637 | 20040903 |
| WO 2005023331 | A3 | 20070503 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AP, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, EA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, EP, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, OA, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

| PRIORITY APPLN. INFO.: | | | |
|---|---|---|---|
| | US 2002-425764P | P | 20021113 |
| | US 2003-499887P | P | 20030904 |
| | US 2003-706081 | A2 | 20031113 |
| | US 2004-564592P | P | 20040423 |
| | WO 2004-US28637 | W | 20040903 |

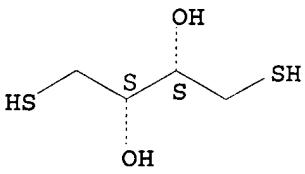
AB The present invention relates to reversible hydrogel systems for intraocular lenses. Particularly, the hydrogel of the present invention is made up of copolymers that can be a hydrogel when in an oxidized state and can be a solution when in a reduced state. A solution of the copolymer can be oxidized to form a hydrogel; and the hydrogel can be reduced to form a solution of the copolymer. Reversible nanogels can also be formed from a dilute solution of the copolymers. The hydrogel is formed with nanoparticles embedded therein to form a nanocomposite whose refractive index and modulus can be controlled by varying the amts. of nanoparticles and the polymer concentration of the hydrogel, resp. Thus, poly[acrylamide-bis(acryloyl)cystamine] hydrogels were prepared and reduced to obtain water-soluble copolymer with pendant thiol groups. The polymer was

used to prepare the hydrogel nanocomposites with three different type of nanoparticle and regelled through the thiol-disulfide exchange reaction. Nanocomposite-containing nanoparticles which did not react with the thiol polymer yielded hydrogel nanocomposite having high refractive index with lower moduli.

IT **3483-12-3**, Dithiothreitol **6892-68-8**, Dithioerythritol
RL: RCT (Reactant); RACT (Reactant or reagent)
(reversible polymeric hydrogel nanocomposites for intraocular lenses)

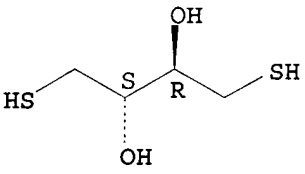
RN 3483-12-3 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.




RN 6892-68-8 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3S)-rel- (CA INDEX NAME)

Relative stereochemistry.




INCL 424429000; 424486000; 424078350; 977904000
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 37

IT **Polyelectrolytes**
(anionic; reversible polymeric hydrogel nanocomposites for intraocular lenses)

IT **Polyelectrolytes**
(cationic; reversible polymeric hydrogel nanocomposites for intraocular lenses)

IT 52-90-4, Cystein, reactions 60-24-2, 2-Mercaptoethanol 109-79-5, Butanethiol **3483-12-3**, Dithiothreitol **6892-68-8**, Dithioerythritol 7782-44-7, Oxygen, reactions 16940-66-2, Sodium borohydride 33195-00-5, Cyanoborohydride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reversible polymeric hydrogel nanocomposites for intraocular lenses)

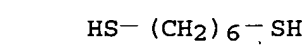
L46 ANSWER 2 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:1252451 HCAPLUS
TITLE: Anionic membrane based on polyepichlorhydrin matrix for alkaline fuel cell: Synthesis, physical and electrochemical properties
AUTHOR(S): Stoica, D.; Ogier, L.; Akrour, L.; Alloin, F.; Fauvarque, J.-F.

CORPORATE SOURCE: UMR 5631 CNRS-INPG-UJF, Laboratoire d'Electrochimie et de Physico-chimie des Materiaux et des Interfaces-LEPMI, Saint-Martin-d'Heres, 38402, Fr.
SOURCE: Electrochimica Acta (2007), 53(4), 1596-1603
CODEN: ELCAAV; ISSN: 0013-4686
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Polymer electrolytes, using a poly(epichlorohydrin-allyl glycidyl ether) copolymer as matrix, were prepared and characterized. Anion conducting networks were obtained by the incorporation of two cyclic diamines named 1,4-diazabicyclo-[2.2.2]-octane (DABCO) and 1-azabicyclo-[2.2.2]-octane (Quinuclidine), neither sensitive to Hoffman elimination. To improve the mech. properties, the membrane was reinforced using polyamide supports. The physicochem. and electrochem. characteristics, ionic exchange capacity, swelling ratio, glass transition temperature, thermal stability and ionic conductivity, were evaluated.

IT **1191-43-1DP**, 1,6-Hexanedithiol, crosslinked reaction products with salt reaction products of allyl glycidyl ether-epichlorohydrin rubber with DABCO and Quinuclidine water_sorption_capacity
RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(anionic membrane based on polyepichlorohydrin matrix for alkaline fuel cell: synthesis, phys. and electrochem. properties)

RN 1191-43-1 HCAPLUS
CN 1,6-Hexanedithiol (CA INDEX NAME)



CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

IT Anion exchange membranes
Cation exchange membranes
Fuel cell separators
Interpenetrating polymer networks
Ion exchange
Mechanical properties
**Polyelectrolytes**
Polymer morphology
Polymer networks
Solid electrolytes
(anionic membrane based on polyepichlorohydrin matrix for alkaline fuel cell: synthesis, phys. and electrochem. properties)

IT 100-76-5DP, Quinuclidine, salt reaction products with epichlorohydrin-allyl glycidyl ether rubber, DABCO, and then also crosslinked by hexanedithiol 280-57-9DP, DABCO, salt reaction products with epichlorohydrin-allyl glycidyl ether rubber, Quinuclidine, and then also crosslinked by hexanedithiol **1191-43-1DP**, 1,6-Hexanedithiol, crosslinked reaction products with salt reaction products of allyl glycidyl ether-epichlorohydrin rubber with DABCO and Quinuclidine water_sorption_capacity
RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(anionic membrane based on polyepichlorohydrin matrix for alkaline fuel cell: synthesis, phys. and electrochem. properties)

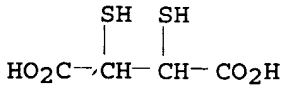
L46 ANSWER 3 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:642874 HCAPLUS
DOCUMENT NUMBER: 147:58349
TITLE: Methods and compositions for drug delivery enhancement
INVENTOR(S): Hilfinger, John; Roessler, Blake; Kish, Phillip
PATENT ASSIGNEE(S): Tsrl, Inc., USA; The Regents of the University of Michigan
SOURCE: PCT Int. Appl., 59pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2007067779 | A2 | 20070614 | WO 2006-US47069 | 200612 08 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2005-748390P P 200512 08

OTHER SOURCE(S): MARPAT 147:58349
AB A method is provided for the delivery of a therapeutic to epithelial cells through the use of a bile acid conjugated to a peptide, the peptide being ionically charged at physiol. pH. The complex is well suited for oral and other forms of therapeutic administration of therapeutic drugs known in the art in order to exact systemic and/or localized effect. Intestinal epithelial cells, as well as non-epithelial cells within the gastrointestinal tract and other target cells receive with greater efficiency a charged therapeutic when delivered with an oppositely charged bile acid conjugate (BAC) through oral administration, direct injection, or infusive administrations, thereby increasing bioavailability.
IT **2418-14-6**, Dimercaptosuccinic acid
RL: PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methods and compns. for drug delivery enhancement)
RN 2418-14-6 HCAPLUS
CN Butanedioic acid, 2,3-dimercapto- (CA INDEX NAME)



CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 2, 18

IT **Polyelectrolytes**
(cationic; methods and compns. for drug delivery enhancement)

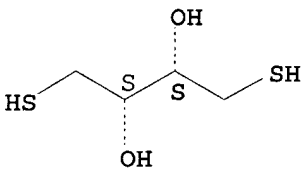
IT 50-53-3, Chlorpromazine, biological studies 50-59-9, Cephaloridine 50-78-2, Aspirin 51-06-9, Procainamide 52-53-9, Verapamil 52-67-5, Penicillamine 53-86-1, Indomethacin 54-31-9, Furosemide 55-65-2, Guanethidine 56-54-2, Quinidine 57-27-2, Morphine, biological studies 58-54-8, Ethacrynic acid 59-05-2, Methotrexate 59-92-7, biological studies 59-96-1, Phenoxybenzamine 60-40-2, Mecamylamine 61-32-5, Methicillin 61-33-6, Benzylpenicillin, biological studies 61-68-7, Mefenamic acid 61-72-3, Cloxacillin 66-79-5, Oxacillin 69-53-4, Ampicillin 69-72-7, Salicylic acid, biological studies 77-19-0, Dicyclomine 86-54-4, Hydralazine 90-82-4, Pseudoephedrine 94-24-6, Tetracaine 99-66-1, Valproic acid 113-45-1, Methylphenidate 130-95-0, Quinine 132-60-5, Cinchophen 137-58-6, Lidocaine 141-01-5, Ferrous fumarate 147-52-4, Nafcillin 147-55-7, Phenethicillin 148-82-3, Melphalan 299-29-6, Ferrous gluconate 363-24-6, Prostaglandin E2 389-08-2, Nalidixic acid 396-01-0, Triamterene 471-34-1, Calcium carbonate, biological studies 484-23-1, Dihydralazine 525-66-6, Propranolol 530-78-9, Flufenamic acid 546-88-3, Acetohydroxamic acid 551-11-1 552-94-3, Salicylsalicylic acid 555-30-6, Methyldopa 644-62-2, Meclofenamic acid 657-24-9, Metformin 738-70-5, Trimethoprim 745-65-3, Prostaglandin E1 768-94-5, Amantadine 1309-42-8, Magnesium hydroxide 1319-82-0, Aminocaproic acid 1403-66-3, Gentamycin 1404-90-6, Vancomycin 1553-60-2, Ibufenac **2418-14-6**, Dimercaptosuccinic acid 2609-46-3, Amiloride 2809-21-4, Etidronic acid 3116-76-5, Dicloxacillin 3440-28-6, Betamipron 3485-14-1, Cyclacillin 3511-16-8, Hetacillin 3577-01-3, Cephaloglycin 4205-90-7, Clonidine 4394-00-7, Nifluminic acid 4428-95-9, Foscarnet 4697-36-3, Carbenicillin 5104-49-4, Flurbiprofen 5250-39-5, Flucloxacillin 5728-52-9, 4-Biphenylacetic acid 6735-59-7, Pralidoxime 6893-02-3, Liothyronine 7220-56-6, Flutiazin 7439-89-6D, Iron, -polysaccharide complex 7720-78-7, Ferrous sulfate 10206-21-0, Cephacetrile 10540-29-1, Tamoxifen 10596-23-3, Clodronic acid 11111-12-9, Cephalosporin 13710-19-5, Tolfenamic acid 14611-51-9, Selegiline 14698-29-4, Oxolinic acid 15307-86-5, Diclofenac 15686-71-2, Cephalexin 15687-27-1, Ibuprofen 16110-51-3, Cromolyn 16662-47-8, Gallopamil 17243-38-8, Azidocillin 17692-38-5, Fluprofen 17737-65-4, Clonixin 17969-20-9, Fenclozic acid 19216-56-9, Prazosin 19562-30-2, Piromidic acid 20168-99-4, Cinmetacin 20830-75-5, Digoxin 20830-81-3, Daunorubicin 21256-18-8, Oxaprozin 21645-51-2, Aluminum hydroxide, biological studies 22071-15-4, Ketoprofen 22131-79-9, Alclofenac 22204-53-1, Naproxen 22494-27-5, Flufenisal 22494-42-4, Diflunisal 23214-92-8, Doxorubicin 23887-31-2, Clorazepate 24209-51-6, Cephanone 24280-93-1, Mycophenolic acid 25395-22-6, o-(Carbamoylphenoxy)acetic acid 25803-14-9, Clometacin 25953-19-9, Cefazolin 26171-23-3, Tolmetin 26774-90-3, Epicillin 26787-78-0, Amoxycillin 26839-75-8, Timolol 26973-24-0,

Ceftezole 27025-49-6, Carfecillin 28657-80-9, Cinoxacin 29110-47-2, Guanfacine 29122-68-7, Atenolol 29679-58-1, Fenoprofen 31036-80-3, Lofexidine 31793-07-4, Pirprofen 31842-01-0, Indoprofen 32808-51-8, Bucloxic acid 33005-95-7, Tiaprofenic acid 34444-01-4, Cefamandole 34645-84-6, Fenclofenac 34787-01-4, Ticarcillin 35121-78-9, Epoprostenol 35531-88-5, Carindacillin 35607-66-0, Cefoxitin 36330-85-5, Fenbufen 36505-82-5, Prodolic acid 37091-66-0, Azlocillin 38194-50-2, Sulindac 38821-53-3, Cephradine 38873-55-1, Furobufen 39718-89-3, Alminoprofen 39746-25-3, 16,16-Dimethylprostaglandin E2 40034-42-2, Rosoxacin 40391-99-9, Pamidronic acid 40828-46-4, Suprofen 41340-25-4, Etodolac 41744-40-5, Sulbenicillin 42794-76-3, Midodrine 42835-25-6, Flumequine 50370-12-2, Cefadroxil 51384-51-1, Metoprolol 51481-65-3, Mezlocillin 51627-14-6, Cefatrizine 51762-05-1, Cefroxadine 51940-44-4, Pipemidic acid 53164-05-9, Acemetacin 53230-10-7, Mefloquine 53714-56-0, Leuprolide 53716-49-7, Carprofen 53808-88-1, Lonazolac 53994-73-3, Cefaclor 54182-58-0, Sucralfate 55268-75-2, Cefuroxime 55985-32-5, Nicardipine 56187-47-4, Cefazedone 56420-45-2, Epirubicin 56796-20-4, Cefmetazole 57576-52-0, Thromboxane A2 58665-96-6, Cefazaflur 58957-92-9, Idarubicin 60142-96-3, Gabapentin 60925-61-3, Ceforanide 61263-35-2, Meteneprost 61270-58-4, Cefonicid 61477-96-1, Piperacillin 61622-34-2, Cefotiam 62571-86-2, Captopril 62587-73-9, Cefsulodin 62893-19-0, Cefoperazone 63469-19-2, Apalcillin 63527-52-6, Cefotaxime 63590-64-7, Terazosin 64221-86-9, Imipenem 64228-79-1, Atracurium 64952-97-2, Latamoxef 65085-01-0, Cefmenoxime 65271-80-9, Mitoxantrone 66104-22-1, Pergolide 66148-78-5, Temocillin 66357-35-5, Ranitidine 66376-36-1, Alendronic acid 66711-21-5, Apraclonidine 68047-06-3, 4- Hydroxytamoxifen 68401-81-0, Ceftizoxime 68475-42-3, Anagrelide 68666-91-1, 15-Deoxy-16-hydroxy-16-vinyl PGE2 68767-14-6, Loxoprofen 69712-56-7, Cefotetan 69739-16-8, Cefodizime 70458-92-3, Pefloxacin 70458-96-7, Norfloxacin 70797-11-4, Cefpiramide 71097-83-1, Nileprost 73384-59-5, Ceftriaxone 73573-88-3, Mevastatin 74011-58-8, Enoxacin 74103-06-3, Ketorolac 74191-85-8, Doxazosin 74863-84-6, Argatroban 75225-51-3, Lovastatin acid 75438-57-2, Moxonidine 76420-72-9, Enalaprilat 76547-98-3, Lisinopril 76610-84-9, Cefbuperazone 78110-38-0, Aztreonam 79350-37-1, Cefixime 79617-96-2, Sertraline 79660-72-3, Fleroxacin 79902-63-9, Simvastatin 80210-62-4, Cefpodoxime 81093-37-0, Pravastatin acid 81403-80-7, Alfuzosin 81845-44-5, Ciprostene 82419-36-1, Ofloxacin 82626-48-0, Zolpidem 82768-85-2, Quinaprilat 83602-05-5, Spiraprilat 84880-03-5, Cefpimizole 84957-29-9, Cefpirome 84957-30-2, Cefquinome 85721-33-1, Ciprofloxacin 86541-78-8, Benazeprilat 87269-97-4, Ramiprilat 87679-71-8, Trandolaprilat 88040-23-7, Cefepime 88150-42-9, Amlodipine
RL: PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methods and compns. for drug delivery enhancement)

L46 ANSWER 4 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:450640 HCAPLUS
DOCUMENT NUMBER: 147:53679
TITLE: A cleavable-polycation template method for the fabrication of noncrosslinked, porous **polyelectrolyte** multilayered films
AUTHOR(S): Chen, Jun; Xia, Xi-Ming; Huang, Shi-Wen; Zhuo,

Ren-Xi
CORPORATE SOURCE: Key Laboratory of Biomedical Polymers, Ministry of Education Department of Chemistry, Wuhan University, Wuhan, 430072, Peop. Rep. China
SOURCE: Advanced Materials (Weinheim, Germany) (2007), 19(7), 979-983
CODEN: ADVMEW; ISSN: 0935-9648
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Porous, noncrosslinked **polyelectrolyte**-complex thin films (see figure), which will find applications in biomedicine, for example for drug or gene delivery, are achieved by using a simple, mild, and efficient method. Layer-by-layer assembly of polyanion and a blend of two polycations is followed by removal of the reductively degradable polycation template in the multilayered film in dithiothreitol solution
IT **3483-12-3**, 1,4-Dithiothreitol
RL: RGT (Reagent); RACT (Reactant or reagent)
(fabrication of porous **polyelectrolyte** multilayered films using cleavable-polycation template method)
RN 3483-12-3 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.




CC 38-3 (Plastics Fabrication and Uses)
ST polycation template method porous **polyelectrolyte** multilayered film fabrication
IT **Polyelectrolytes**
(cationic; fabrication of porous **polyelectrolyte** multilayered films using cleavable-polycation template method)
IT **Polyelectrolytes**
Templates
(fabrication of porous **polyelectrolyte** multilayered films using cleavable-polycation template method)
IT Porous materials
(films; fabrication of porous **polyelectrolyte** multilayered films using cleavable-polycation template method)
IT Phosphates, uses
Silanes
RL: NUU (Other use, unclassified); USES (Uses)
(in buffer; fabrication of porous **polyelectrolyte** multilayered films using cleavable-polycation template method)
IT Films
(multilayer; fabrication of porous **polyelectrolyte** multilayered films using cleavable-polycation template method)
IT Films
(porous; fabrication of porous **polyelectrolyte** multilayered films using cleavable-polycation template method)
IT 25704-18-1, Poly(sodium 4-styrenesulfonate)
RL: PEP (Physical, engineering or chemical process); PRP

(Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(fabrication of porous **polyelectrolyte** multilayered films using cleavable-polycation template method)

IT **3483-12-3**, 1,4-Dithiothreitol
RL: RGT (Reagent); RACT (Reactant or reagent)
(fabrication of porous **polyelectrolyte** multilayered films using cleavable-polycation template method)

IT 14808-60-7, Quartz, miscellaneous
RL: MSC (Miscellaneous)
(substrate; fabrication of porous **polyelectrolyte** multilayered films using cleavable-polycation template method)

IT 940892-01-3 940892-02-4
RL: MSC (Miscellaneous)
(template; fabrication of porous **polyelectrolyte** multilayered films using cleavable-polycation template method)

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 5 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:332643 HCAPLUS
DOCUMENT NUMBER: 146:350152
TITLE: Printing liquid solution arrays for inorganic combinatorial libraries
INVENTOR(S): Dong, Yi; Cheng, Shifan; Tao, Dejie; Li, Yi-Qun
PATENT ASSIGNEE(S): Intematix Corporation, USA
SOURCE: U.S. Pat. Appl. Publ., 19pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2007065947 | A1 | 20070322 | US 2005-231309 | 200509 19 |
| WO 2007035636 | A2 | 20070329 | WO 2006-US36285 | 200609 18 |
| WO 2007035636 | A3 | 20070927 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

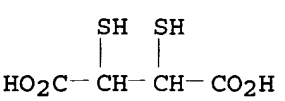
PRIORITY APPLN. INFO.: US 2005-231309 A 200509 19

AB This invention provides methods and systems to prepare replicate arrays from master arrays of liquid solns. Replicate arrays of liquid solns. can be reacted to form product solid inorg. material arrays for anal. and selection of optimum processes and products with desirable properties.

IT **2418-14-6**, DMSA
RL: CRG (Combinatorial reagent); RGT (Reagent); CMBI (Combinatorial study); RACT (Reactant or reagent)
(DMSA; method of preparing replicate arrays of liquid solns. by printing liquid solution arrays for inorg. combinatorial libraries)

RN 2418-14-6 HCAPLUS

CN Butanedioic acid, 2,3-dimercapto- (CA INDEX NAME)



INCL 436080000; 436518000; 427002110

CC 79-7 (Inorganic Analytical Chemistry)
Section cross-reference(s): 78

IT **Polyelectrolytes**
(anionic; method of preparing replicate arrays of liquid solns. by printing liquid solution arrays for inorg. combinatorial libraries)

IT **Polyelectrolytes**
(cationic; method of preparing replicate arrays of liquid solns. by printing liquid solution arrays for inorg. combinatorial libraries)

IT **2418-14-6**, DMSA
RL: CRG (Combinatorial reagent); RGT (Reagent); CMBI (Combinatorial study); RACT (Reactant or reagent)
(DMSA; method of preparing replicate arrays of liquid solns. by printing liquid solution arrays for inorg. combinatorial libraries)

L46 ANSWER 6 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:141458 HCAPLUS

DOCUMENT NUMBER: 146:428046

TITLE: Design, synthesis and evaluation of a novel polymer for gene delivery to mammalian cells

AUTHOR(S): Chittimalla, Chandrashekhar; Dalkara, Deniz; Zuber, Guy

CORPORATE SOURCE: Laboratoire de Chimie Genetique, CNRS UMR 7175-LC1- Faculte de Pharmacie, Universite Louis Pasteur, Illkirch, 67401, Fr.

SOURCE: Letters in Drug Design & Discovery (2007), 4(2), 92-98
CODEN: LDDDAW; ISSN: 1570-1808

PUBLISHER: Bentham Science Publishers Ltd.

DOCUMENT TYPE: Journal

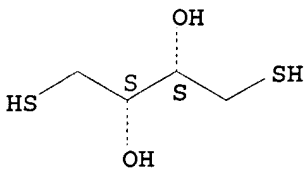
LANGUAGE: English

AB We rationally designed and synthesized a novel cationic polymer with intrinsic endosomolytic properties based on a semi-peptide monomer bridged by disulfide bonds. This polymer was shown to associate with DNA and to form polyplexes with gene transfection activity without addition of chloroquine, a known endosomolytic agent.

IT **3483-12-3**
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(novel cationic polymer design, synthesis and evaluation for gene delivery to mammalian cells)

RN 3483-12-3 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.




CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 3, 34, 35
IT **Polyelectrolytes**
(anionic; novel cationic polymer design, synthesis and evaluation for gene delivery to mammalian cells)
IT **Polyelectrolytes**
(cationic; novel cationic polymer design, synthesis and evaluation for gene delivery to mammalian cells)
IT 70-18-8, Glutathione, properties **3483-12-3** 9007-28-7, Chondroitin sulfate
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(novel cationic polymer design, synthesis and evaluation for gene delivery to mammalian cells)
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 7 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:1348125 HCAPLUS
DOCUMENT NUMBER: 146:169041
TITLE: Visualization of the Degradation of a Disulfide Polymer, Linear Poly(ethylenimine sulfide), for Gene Delivery
AUTHOR(S): Lee, Yan; Mo, Heejung; Koo, Heebeom; Park, Jong-Yeun; Cho, Min Yi; Jin, Geun-Woo; Park, Jong-Sang
CORPORATE SOURCE: School of Chemistry and Molecular Engineering, Seoul National University, Seoul, 151-742, S. Korea
SOURCE: Bioconjugate Chemistry (2007), 18(1), 13-18
CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 146:169041
AB Polyethylenimine (PEI) shows high transfection efficiency and cytotoxicity due to its high amine d. The new disulfide cationic polymer, linear poly(ethylenimine sulfide) (l-PEIS), was synthesized for efficient and safe gene delivery. As the amine d. of l-PEIS increased, the transfection efficiency also increased. L-PEIS-6 and l-PEIS-8 show transfection efficiencies that are similar to that of PEI. However, cytotoxicity of l-PEIS was not observed due to the biodegradable disulfide bond. The disulfide bonds are stable in the oxidative extracellular condition and can be degraded rapidly in the reductive intracellular condition. The degradation of l-PEIS in HeLa cells was visualized by fluorescence microscopy using the

probe-probe dequenching effect of BODIPY-FL fluorescence dye. L-PEIS was degraded completely within 3 h.

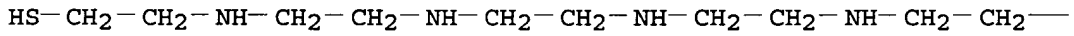
IT **920511-77-9P 920511-78-0P 920511-79-1P**
RL: PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(biodegradable disulfide polymer, linear polyethylenimine sulfide, for gene delivery)

RN 920511-77-9 HCAPLUS
CN 3,6,9,12-Tetraazatetradecane-1,14-dithiol, homopolymer (CA INDEX NAME)

CM 1

CRN 920511-73-5
CMF C10 H26 N4 S2

PAGE 1-A



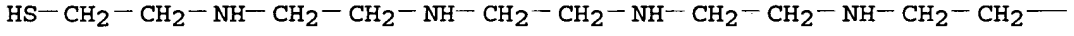
PAGE 1-B

RN 920511-78-0 HCAPLUS
CN 3,6,9,12,15,18-Hexaazaeicosane-1,20-dithiol, homopolymer (CA INDEX NAME)

CM 1

CRN 920511-74-6
CMF C14 H36 N6 S2

PAGE 1-A



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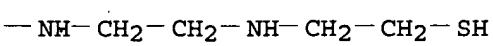
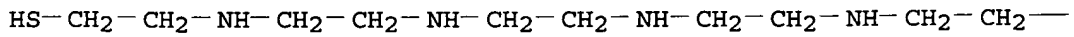


RN 920511-79-1 HCAPLUS
CN 3,6,9,12,15,18,21,24-Octaazahexacosane-1,26-dithiol, homopolymer (CA INDEX NAME)

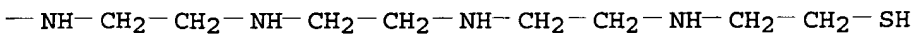
CM 1

CRN 920511-75-7
CMF C18 H46 N8 S2

PAGE 1-A

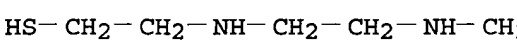


PAGE 1-B



IT **84295-19-2P 920511-73-5P 920511-74-6P 920511-75-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(biodegradable disulfide polymer, linear polyethylenimine sulfide, for gene delivery)

RN 84295-19-2 HCAPLUS
CN Ethanethiol, 2,2'-(1,2-ethanediyldiimino)bis- (CA INDEX NAME)



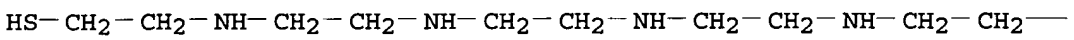
RN 920511-73-5 HCAPLUS
CN 3,6,9,12-Tetraazatetradecane-1,14-dithiol (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 920511-74-6 HCAPLUS
CN 3,6,9,12,15,18-Hexaazaeicosane-1,20-dithiol (CA INDEX NAME)

PAGE 1-A



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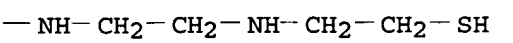
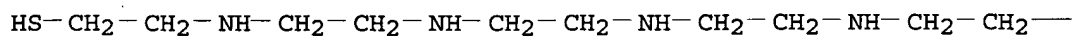
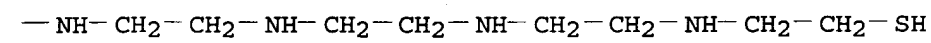


RN 920511-75-7 HCAPLUS
CN 3,6,9,12,15,18,21,24-Octaazahexacosane-1,26-dithiol (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 35

IT **Polyelectrolytes**
(cationic; biodegradable disulfide polymer, linear polyethylenimine sulfide, for gene delivery)

IT 920511-76-8P **920511-77-9P 920511-78-0P**
**920511-79-1P** 920511-80-4P 920511-82-6P 920511-84-8P
920511-86-0P
RL: PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(biodegradable disulfide polymer, linear polyethylenimine sulfide, for gene delivery)

IT 56234-52-7P **84295-19-2P** 147382-34-1P 920511-64-4P
920511-65-5P 920511-66-6P 920511-67-7P 920511-68-8P
920511-69-9P 920511-70-2P 920511-71-3P 920511-72-4P
**920511-73-5P 920511-74-6P 920511-75-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(biodegradable disulfide polymer, linear polyethylenimine sulfide, for gene delivery)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

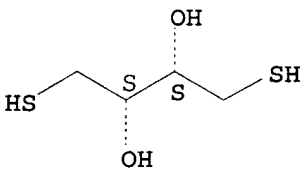
L46 ANSWER 8 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:1017965 HCAPLUS
DOCUMENT NUMBER: 146:87093
TITLE: Disassembly of layer-by-layer films of plasmid DNA and reducible TAT polypeptide
AUTHOR(S): Blacklock, Jenifer; Handa, Hitesh; Soundara Manickam, Devika; Mao, Guangzhao; Mukhopadhyay, Ashis; Oupicky, David
CORPORATE SOURCE: Department of Pharmaceutical Sciences, Wayne State University, Detroit, MI, 48202, USA
SOURCE: Biomaterials (2006), Volume Date 2007, 28(1), 117-124
CODEN: BIMADU; ISSN: 0142-9612
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB This paper reports the disassembly of layer-by-layer (LbL) films of plasmid DNA and a reducible cationic polypeptide. To utilize a reducing microenvironment of cellular plasma membrane as a potential trigger, LbL films are assembled to contain both DNA and the TAT-based polypeptide (PTAT) with reducible disulfide bonds in the backbone. The assembly and disassembly processes are monitored by

goniometry, ellipsometry, and atomic force microscopy (AFM). The structure of the PTAT films is compared with that of non-reducible poly(L-lysine) (PLL) films. Both PTAT and PLL films exhibit exponential growth but with the contact angle alternating between characteristic values. Ellipsometry and AFM show a gradual and complete disassembly of the PTAT but not the PLL films in a 24 h period in the reducing environment in vitro. This study suggests a potential of using reducible LbL films for controlled DNA delivery.

IT **3483-12-3**, 1,4-Dithiothreitol
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(disassembly of layer-by-layer films of plasmid DNA and reducible TAT polypeptide)
RN 3483-12-3 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.




CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 22
ST layer by layer DNA TAT polypeptide **polyelectrolyte** gene delivery
IT Contact angle
Gene therapy
Genetic vectors
**Polyelectrolytes**
Surface roughness
Thickness
(disassembly of layer-by-layer films of plasmid DNA and reducible TAT polypeptide)
IT **3483-12-3**, 1,4-Dithiothreitol
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(disassembly of layer-by-layer films of plasmid DNA and reducible TAT polypeptide)
REFERENCE COUNT: 62 THERE ARE 62 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 9 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:485676 HCAPLUS
DOCUMENT NUMBER: 144:489721
TITLE: Polymer actuators with increased displacement and treatment method for them
INVENTOR(S): Kato, Kenji; Sugiyama, Minoru
PATENT ASSIGNEE(S): Eamex Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| JP 2006131816 | A | 20060525 | JP 2004-324615 | 200411 09 |

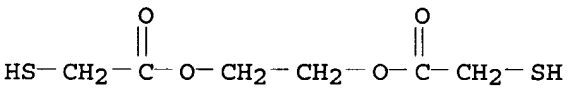
PRIORITY APPLN. INFO.: JP 2004-324615 200411 09

AB The treatment method, useful for multilayer polymer actuators containing ion-exchange resins as **polyelectrolytes**, includes immersing polymer actuators in C1-5 liquid organic compds. having ≥1 terminal amino group or thiol group, C3-7 liquid organic compds. having ≥1 terminal carboxyl group, or hydrazine and washing with water. Thus, immersing a carboxy-containing fluoropolymer (Flemion) sheet in methanol, then in an aqueous solution of dichloro(1,10-phenanthroline)gold chloride for 12 h, adsorbing, reducing with sodium sulfite so as to form a gold electrode, washing, and repeating these electrode-forming processes 3 times gave a multilayer actuator. The actuator was immersed in ethylamine for 30 min, then washed in water for 30 min to show increase in bend angle 80% in application of voltage.

IT **123-81-9**, Ethylene glycol bis(mercaptoacetate)
RL: TEM (Technical or engineered material use); USES (Uses)
(treating agent; treatment method for polymer actuators with increased displacement)

RN 123-81-9 HCAPLUS

CN Acetic acid, 2-mercapto-, 1,1'-(1,2-ethanediyl) ester (CA INDEX NAME)



CC 38-2 (Plastics Fabrication and Uses)
Section cross-reference(s): 76

IT Actuators
Ion exchangers
**Polyelectrolytes**
(treatment method for polymer actuators with increased displacement)

IT 56-40-6, Glycine, uses 64-02-8, EDTA tetrasodium salt 67-42-5, GEDTA 68-11-1, Thioglycolic acid, uses 75-04-7, Ethylamine, uses 78-90-0, 1,2-Propanediamine 107-15-3, Ethylenediamine, uses 109-76-2, 1,3-Propanediamine 110-14-5, Succinic amide 110-15-6, Succinic acid, uses 110-85-0, Piperazine, uses 110-94-1, Glutaric acid 111-16-0, Pimelic acid 111-40-0, Diethylenetriamine 111-41-1 112-24-3, Triethylenetetramine 112-57-2, Tetraethylenepentamine 120-93-4, Ethyleneurea **123-81-9**, Ethylene glycol bis(mercaptoacetate) 124-04-9, Adipic acid, uses 124-09-4, Hexamethylenediamine, uses 139-33-3, EDTA disodium salt 150-39-0 280-57-9, Triethylenediamine 302-01-2, Hydrazine, uses 505-48-6, Octanedioic acid 4067-16-7, Pentaethylenehexamine 7379-26-2, EDTA ammonium salt 7611-50-9 28631-79-0, Aminoethylpiperazine 69468-17-3, Butanediamine 80247-16-1, Diaminopentane
RL: TEM (Technical or engineered material use); USES (Uses)
(treating agent; treatment method for polymer actuators with

increased displacement)

L46 ANSWER 10 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:404966 HCAPLUS
DOCUMENT NUMBER: 142:435061
TITLE: Polymer flocculant and its manufacture for treatment of sludge or wastewater
INVENTOR(S): Fukushima, Hajime; Nishikawa, Kazuyoshi
PATENT ASSIGNEE(S): Sanyo Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

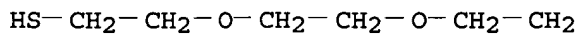
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 2005118723 | A | 20050512 | JP 2003-358523 | 200310 17 |
| JP 3977794 | B2 | 20070919 | | |

PRIORITY APPLN. INFO.: JP 2003-358523 200310 17

OTHER SOURCE(S): MARPAT 142:435061

AB The flocculant is manufactured by polymerizing water-soluble monomers in the presence of allylamine- and unsatd. carboxylic acid-containing amphoteric polymers, radical polymerization initiators, and chain transfer agents represented by D[(CO)pO(CO)qR1T]m (D = m-valent organic residue; R1 = C1-8 alkylene; T = chain transfer residue; p, q = 0, 1; p and q are not 1 at the same time; m = 2-8). Since the flocculant has high mol. weight and narrow mol. weight distribution, high flocculation rate and floc dewatering ratio are attained by using a small amount of the flocculant.

IT **14970-87-7P**, Ethylene glycol-di-2-mercaptoethyl ether
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(chain transfer agent; polymer flocculant and its manufacture with chain transfer agent for treatment of sludge or wastewater)
RN 14970-87-7 HCAPLUS
CN Ethanethiol, 2,2'-[1,2-ethanediylbis(oxy)]bis- (CA INDEX NAME)



IC ICM B01D021-01
ICS C02F001-56; C02F011-14; C08F002-44; C08F271-00
CC 60-2 (Waste Treatment and Disposal)
Section cross-reference(s): 37
IT Chain transfer agents
Flocculants
**Polyelectrolytes**
Wastewater treatment sludge
(polymer flocculant and its manufacture with chain transfer agent for treatment of sludge or wastewater)
IT **14970-87-7P**, Ethylene glycol-di-2-mercaptoethyl ether

188441-90-9P, Pentaerythritol-tetra-2-mercaptoethyl ether
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(chain transfer agent; polymer flocculant and its manufacture with chain transfer agent for treatment of sludge or wastewater)

L46 ANSWER 11 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:185371 HCAPLUS
DOCUMENT NUMBER: 142:257290
TITLE: System for sensitive and rapid determination of antimicrobial susceptibility
INVENTOR(S): Goldberg, David A.; Howson, David C.; Metzger, Steven W.; Buttry, Daniel A.; Saavedra, Steven Scott
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 94 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2005048599 | A1 | 20050303 | US 2004-888828 | 20040708 |
| AU 2004273783 | A1 | 20050331 | AU 2004-273783 | 20040708 |
| CA 2532414 | A1 | 20050331 | CA 2004-2532414 | 20040708 |
| WO 2005027714 | A2 | 20050331 | WO 2004-US22025 | 20040708 |
| WO 2005027714 | A3 | 20060921 | | |
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| EP 1648286 | A2 | 20060426 | EP 2004-809482 | 20040708 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR | | | | |
| JP 2007531863 | T | 20071108 | JP 2006-520235 | 20040708 |
| US 2007037225 | A1 | 20070215 | US 2005-303803 | |

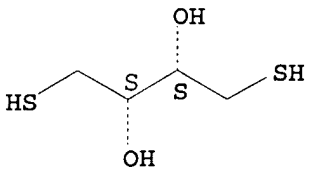
| | | | |
|---|---|---|---|
| | | | 200512 16 |
| PRIORITY APPLN. INFO.: | US 2003-486605P | P | 200307 12 |
| | US 2004-571479P | P | 200405 13 |
| | US 2004-888828 | A2 | 200407 08 |
| | WO 2004-US22025 | W | 200407 08 |
| | US 2004-637423P | P | 200412 16 |
| | US 2004-638989P | P | 200412 22 |

AB The present invention relates to moving microorganisms to a surface, where they are grown in the presence and absence of antimicrobials, and by monitoring the growth of the microorganisms over time in the two conditions, their susceptibility to the antimicrobials can be determined The microorganisms can be moved to the surface through electrophoresis, centrifugation or filtration. When the movement involves electrophoresis, the presence of oxidizing and reducing reagents lowers the voltage at which electrophoretic force can be generated and allows a broader range of means by which the target can be detected. Monitoring can comprise optical detection, and most conveniently includes the detection of individual microorganisms. The microorganisms can be stained in order to give information about their response to antimicrobials.

IT **3483-12-3**, Dithiothreitol **6892-68-8**, Dithioerythritol
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(as reducing agent; system for sensitive and rapid determination of antimicrobial susceptibility)

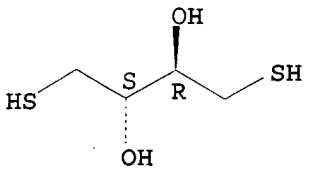
RN 3483-12-3 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.




RN 6892-68-8 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3S)-rel- (CA INDEX NAME)

Relative stereochemistry.




IC ICM C12Q001-04
ICS C12M001-34
INCL 435034000; 435287100
CC 9-1 (Biochemical Methods)
Section cross-reference(s): 1, 10
IT Aptamers
**Polyelectrolytes**
(as affinity component for microorganism; system for sensitive and rapid determination of antimicrobial susceptibility)
IT **Polyelectrolytes**
(cationic, as affinity component for microorganism; system for sensitive and rapid determination of antimicrobial susceptibility)
IT 50-81-7D, L-Ascorbic acid, compds. 70-18-8, Glutathione, analysis 102-54-5D, Ferrocene, compds. 1910-42-5, Methyl viologen **3483-12-3**, Dithiothreitol **6892-68-8**, Dithioerythritol 13408-63-4D, Ferrocyanide, compds.
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(as reducing agent; system for sensitive and rapid determination of antimicrobial susceptibility)

L46 ANSWER 12 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:654733 HCAPLUS
DOCUMENT NUMBER: 141:179731
TITLE: Reversible polymer hydrogel systems for medical uses
INVENTOR(S): Ravi, Nathan
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 19 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2004156880 | A1 | 20040812 | US 2003-706081 | 20031113 |
| CA 2542512 | A1 | 20050317 | CA 2004-2542512 | 20040903 |
| WO 2005023331 | A2 | 20050317 | WO 2004-US28637 | 20040903 |
| WO 2005023331 | A3 | 20070503 | | |

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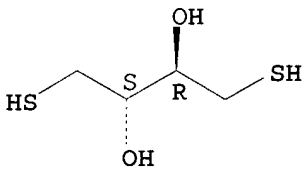
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW
RW: AP, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW, EA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, EP, AT, BE, BG,
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
MC, NL, PL, PT, RO, SE, SI, SK, TR, OA, BF, BJ, CF, CG, CI,
CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

| | | | | |
|---|---|---|---|---|
| JP 2007517077 | T | 20070628 | JP 2006-525445 | 200409 03 |
| US 2007269488 | A1 | 20071122 | US 2007-574667 | 200704 05 |
| PRIORITY APPLN. INFO.: | | | US 2002-425764P | P 200211 13 |
| | | | US 2003-499887P | P 200309 04 |
| | | | US 2003-706081 | A 200311 13 |
| | | | US 2004-564592P | P 200404 23 |
| | | | WO 2004-US28637 | W 200409 03 |

AB The present invention relates to reversible hydrogel systems for medical applications. Particularly, the hydrogel of the present invention is made up of copolymers that can be a hydrogel when in an oxidized state and can be a solution when in a reduced state. A solution of the copolymer can be oxidized to form a hydrogel; and the hydrogel can be reduced to form a solution of the copolymer. The solution can be dehydrated to produce the dry copolymer for storage. Furthermore, the present invention also relates to methods of making and using the reversible hydrogel systems. For example, hydrogels of varying compns. were prepared from acrylamide (Aam) and N,N'-bis(acryloyl)cystamine (BAC) at 2, 4, and 6 acrylic mole percent of BAC with respect to acrylamide. Increasing the BAC resulted in gels with better structural integrity. Gels having higher amount of BAC were slightly less transparent. ABSS2, the copolymer containing disulfide bonds by incorporating 2 acrylic mole percent of BAC, did not form a stable gel but a viscous solution instead. However, stable gels were obtained at higher concns. (>15%). The feasibility of using thiol containing copolymers as injectable precursors for in vivo chemical crosslinking under physiol. conditions was demonstrated. In situ endocapsular hydrogel formation using reversible disulfide chemical is a promising technique, not only for developing injectable intraocular lenses but also for use as vitreous substitutes, and topical medicaments.

IT **6892-68-8**, Dithioerythritol
RL: RCT (Reactant); RACT (Reactant or reagent)
(reducing agent; reversible polymer hydrogel systems for medicinal uses)
RN 6892-68-8 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3S)-rel- (CA INDEX NAME)

Relative stereochemistry.




IC ICM A61F002-14
INCL 424427000; 623005140
CC 63-8 (Pharmaceuticals)
Section cross-reference(s): 35, 36
IT **Polyelectrolytes**
(anionic; reversible polymer hydrogel systems for medicinal uses)
IT **Polyelectrolytes**
(cationic; reversible polymer hydrogel systems for medicinal uses)
IT 52-90-4, Cystein, reactions 60-23-1, Mercaptoethylamine 60-24-2, 2-Mercaptoethanol 109-79-5, Butanethiol 128-53-0, Ethylmaleimide **6892-68-8**, Dithioerythritol 16940-66-2, Sodium borohydride 33195-00-5, Cyanoborohydride 51805-45-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reducing agent; reversible polymer hydrogel systems for medicinal uses)

L46 ANSWER 13 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:349656 HCAPLUS
DOCUMENT NUMBER: 140:359285
TITLE: Waste reduction in production of leather
INVENTOR(S): Taeger, Tilman Luedecke; Pabst, Gunther; Lamalle, Philippe; Hueffer, Stephan; Schroeder, Stefan
PATENT ASSIGNEE(S): BASF A.-G., Germany
SOURCE: Ger. Offen., 53 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 10249077 | A1 | 20040429 | DE 2002-10249077 | 20021021 |
| WO 2004038046 | A1 | 20040506 | WO 2003-EP11326 | 20031014 |

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LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
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NE, SN, TD, TG

WO 2004037589 A2 20040506 WO 2003-EP11368
200310
14

WO 2004037589 A3 20040624
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SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
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SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG

AU 2003273997 A1 20040513 AU 2003-273997
200310
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EP 1556522 A1 20050727 EP 2003-757967
200310
14
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
SK

EP 1556523 A2 20050727 EP 2003-785620
200310
14
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
SK

BR 2003015272 A 20050823 BR 2003-15272
200310
14

CN 1705756 A 20051207 CN 2003-80101747
200310
14

US 2007022541 A1 20070201 US 2005-529744
200503
29

US 2006037148 A1 20060223 US 2005-531167
200504
11

US 7250062 B2 20070731

US 2007143930 A1 20070628 US 2007-682924
200703
07

PRIORITY APPLN. INFO.: DE 2002-10249077 A
200210
21

| | | |
|---|---|---|
| DE 2003-10319240 | A | 200304 28 |
| WO 2003-EP11326 | W | 200310 14 |
| WO 2003-EP11368 | W | 200310 14 |
| US 2005-531167 | A1 | 200504 11 |

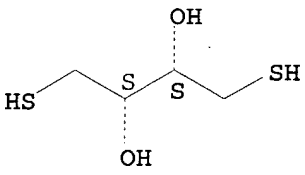
AB The title process, requiring less waste disposal, uses ≥2 of the steps: addition of **polyelectrolytes**, treatment with aqueous baths containing salts of specified structure, use of defatting agents of specified structure, and tanning in the presence of dialdehydes. Leather was softened with alkoxylated alcs., limed with polyethylenimine (I), racemic dithiothreitol, and NaOH; delimed with aqueous surfactants, Basozym CM, and bates; and pickled and tanned with aqueous I, Lipoderm, GS 1 (tanning agent), Tamol NA, and salts.

IT **3483-12-3**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(waste reduction in production of leather)

RN 3483-12-3 HCAPLUS

CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.




IC ICM C14C013-02
ICS C14C001-00; C14C003-00; C14C005-00

CC 45-2 (Industrial Organic Chemicals, Leather, Fats, and Waxes)

ST leather prodn waste redn; **polyelectrolyte** leather prodn; polyethylenimine leather prodn; liming leather waste redn; deliming leather waste redn; tanning leather waste redn; dialdehyde tanning leather waste redn

IT Leather
**Polyelectrolytes**
Wastes
(waste reduction in production of leather)

IT 302-01-2D, Hydrazine, derivs. 1344-09-8, Sodium silicate **3483-12-3** 7803-49-8, Hydroxylamine, processes 9002-98-6, Polyethylenimine 9005-25-8D, Starch, cationic derivs. 25087-26-7, Poly(methacrylic acid) 25549-84-2, Poly(sodium acrylate) 26677-99-6, Acrylic acid-maleic anhydride copolymer 681854-09-1, Lipoderm Licker A 1 681854-10-4, Lipoderm Licker LA 681854-12-6, Lipoderm Oil SK 681856-07-5, Basozyme L 10

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(waste reduction in production of leather)

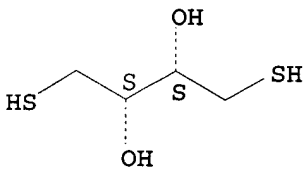
L46 ANSWER 14 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:798402 HCAPLUS
DOCUMENT NUMBER: 139:311931
TITLE: Metal coating of hair fibers for cosmetics
INVENTOR(S): Vic, Gabin; Livoreil, Aude; Giroud, Franck
PATENT ASSIGNEE(S): L'oreal, Fr.
SOURCE: Fr. Demande, 18 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| FR 2838050 | A1 | 20031010 | FR 2002-4352 | 20020408 |
| FR 2838050 | B1 | 20060714 | | |
| CN 1449737 | A | 20031022 | CN 2003-108449 | 20030331 |
| BR 2003000873 | A | 20040817 | BR 2003-873 | 20030403 |
| EP 1352630 | A2 | 20031015 | EP 2003-290860 | 20030407 |
| EP 1352630 | A3 | 20040324 | | |
| EP 1352630 | B1 | 20060301 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| US 2003223944 | A1 | 20031204 | US 2003-407911 | 20030407 |
| JP 2003300840 | A | 20031021 | JP 2003-104420 | 20030408 |
| JP 3759120 | B2 | 20060322 | | |
| PRIORITY APPLN. INFO.: | | | FR 2002-4352 A | 20020408 |
| | | | US 2002-372455P P | 20020416 |

AB The invention relates to a treatment process which confers cosmetic properties on hair fibers. The process consists of treating the fibers with a metal salt in the presence of a reducing agent, directly on the fiber to form the corresponding free metal. Thus, a lock of hair after being shampooed, was dried and an aqueous solution of AgNO3 was applied onto the hair. After the addition of NaBH4, the natural pigmented hair was dark, with metallic brilliance reflected

on it.
IT **3483-12-3**, Dithiothreitol
RL: RCT (Reactant); RACT (Reactant or reagent)
(metal treatment of hair fibers for cosmetics)
RN 3483-12-3 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.




IC ICM A61K007-075
CC 62-3 (Essential Oils and Cosmetics)
IT **Polyelectrolytes**
Surfactants
(amphoteric; metal treatment of hair fibers for cosmetics)
IT **Polyelectrolytes**
Surfactants
(cationic; metal treatment of hair fibers for cosmetics)
IT 50-81-7, Ascorbic acid, reactions 53-57-6, NaDPH 58-68-4, NaDH 68-11-1, Thioglycolic acid, reactions 77-92-9D, Citric acid, salts 106-51-4, 2,5-Cyclohexadiene-1,4-dione, reactions 123-31-9, Hydroquinone, reactions 280-64-8, 9-BBN 1758-73-2, Formamidinesulfinic acid 2885-00-9, 1-Octadecanethiol **3483-12-3**, Dithiothreitol 6838-83-1, Diisoamylborane 7772-98-7 7775-14-6 7803-51-2, Phosphine 13762-51-1 14451-43-5 16853-85-3 16940-66-2 17836-88-3 25895-60-7, Sodium cyanoborohydride 37318-49-3, Protein disulfide isomerase 56553-60-7 131760-67-3 145626-87-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(metal treatment of hair fibers for cosmetics)
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 15 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:219991 HCAPLUS
DOCUMENT NUMBER: 138:385893
TITLE: Directed Reactions within Confined Reaction Environments: Polyadditions in **Polyelectrolyte**-Surfactant Complexes
AUTHOR(S): Ganeva, Desislava; Faul, Charl F. J.; Goetz, Christian; Sanderson, Ronald D.
CORPORATE SOURCE: Department of Chemistry, Division of Polymer Science, University of Stellenbosch, Matieland, 7602, S. Afr.
SOURCE: Macromolecules (2003), 36(8), 2862-2866
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Polyaddn. reactions performed within a highly ordered **polyelectrolyte**-surfactant monomer complex of polydiallyldimethylammonium chloride and di(undecenyl) phosphate

give a 1:1 copy of the original lamellar host structure. No phase disruption or disordering occurs during the reaction. The phase morphol. of the host before and after swelling and after polymerization is investigated by small-angle X-ray scattering and transmission electron microscopy. The polymer symplex has an improved thermal and mech. stability.

IT **27517-53-9P**, 1,6-Hexanedithiol homopolymer
**31324-94-4P**, 1,9-Nonanedithiol homopolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of di(undecenyl) phosphate-polydiallyldimethylammonium chloride complex as template for polymerization of dithiols)

RN 27517-53-9 HCAPLUS
CN 1,6-Hexanedithiol, homopolymer (CA INDEX NAME)

CM 1

CRN 1191-43-1
CMF C6 H14 S2

$HS-(CH_2)_6-SH$

RN 31324-94-4 HCAPLUS
CN 1,9-Nonanedithiol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 3489-28-9
CMF C9 H20 S2

$HS-(CH_2)_9-SH$

CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36, 46

ST **polyelectrolyte** surfactant complex prepn polymn dithiol; polydiallyldimethylammonium chloride diundecenyl phosphate complex dithiol polymn

IT **27517-53-9P**, 1,6-Hexanedithiol homopolymer
**31324-94-4P**, 1,9-Nonanedithiol homopolymer 42557-05-1P, Poly(dithio-1,6-hexanediyl) 42557-06-2P, Poly(dithio-1,9-nonanediyl)
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of di(undecenyl) phosphate-polydiallyldimethylammonium chloride complex as template for polymerization of dithiols)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 16 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:97928 HCAPLUS
DOCUMENT NUMBER: 138:149370
TITLE: Reversed micellar systems, and their use for gene delivery to parenchymal cells
INVENTOR(S): Monahan, Sean D.; Wolff, Jon A.; Slattum, Paul M.; Hagstrom, James E.; Budker, Vladimir G.

PATENT ASSIGNEE(S): Mirus Corp., USA
SOURCE: U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S. 6,429,200.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2003027339 | A1 | 20030206 | US 2002-81461 | 200202 21 |
| US 6673612 | B2 | 20040106 | | |
| US 6429200 | B1 | 20020806 | US 1999-354957 | 199907 16 |
| US 2004023393 | A1 | 20040205 | US 2003-627247 | 200307 25 |
| US 7091041 | B2 | 20060815 | | |
| US 2007010004 | A1 | 20070111 | US 2006-479587 | 200606 30 |

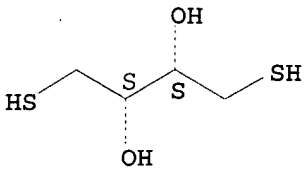
| | | | |
|---|---|---|---|
| PRIORITY APPLN. INFO.: | US 1999-354957 | A2 | 199907 16 |
| | US 1998-93227P | P | 199807 17 |
| | US 1998-93321P | P | 199807 20 |
| | US 2002-81461 | A3 | 200202 21 |
| | US 2003-627247 | A2 | 200307 25 |

AB Disclosed herein are methods of preparing a gene delivery complex comprising solubilizing a nucleic acid into a reversed micelle with an internal water volume for delivery to parenchymal cells. Compds., such as polycations, which compact the nucleic acid can be added for easier delivery. Other mols., such as a surfactant having a disulfide bond, are used to interact with the nucleic acid-micelle complex to further enhance gene delivery.

IT **3483-12-3**, Dithiothreitol
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use in micelle destruction; reversed micellar systems, and uses of surfactants to enhance their ability to deliver genes to parenchymal cells)
RN 3483-12-3 HCAPLUS

CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.




IC ICM C12N015-88
ICS B01J013-02
INCL 435458000; 264004100
CC 6-7 (General Biochemistry)
Section cross-reference(s): 1, 3
IT **Polyelectrolytes**
(cationic; reverse micelles for delivery of nucleic acids)
IT **3483-12-3**, Dithiothreitol
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use in micelle destruction; reversed micellar systems, and uses of surfactants to enhance their ability to deliver genes to parenchymal cells)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 17 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:6160 HCAPLUS
DOCUMENT NUMBER: 138:88635
TITLE: Chimeric immunomodulatory compounds comprising nucleic acids linked through dendrimer or polysaccharide spacer and antigen for treating allergy, infection or cancer
INVENTOR(S): Fearon, Karen L.; Dina, Dino; Tuck, Stephen F.
PATENT ASSIGNEE(S): Dynavax Technologies Corporation, USA
SOURCE: PCT Int. Appl., 224 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2003000922 | A2 | 20030103 | WO 2002-US20025 | 200206 21 |
| WO 2003000922 | A3 | 20031023 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI,

| | | | | |
|---|---|---|---|---|
| | FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| CA 2451974 | | A1 | 20030103 | CA 2002-2451974 200206 21 |
| AU 2002345847 | | A1 | 20030108 | AU 2002-345847 200206 21 |
| EP 1404873 | | A2 | 20040407 | EP 2002-744589 200206 21 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | |
| CN 1533442 | | A | 20040929 | CN 2002-814608 200206 21 |
| JP 2004537535 | | T | 20041216 | JP 2003-507303 200206 21 |
| PRIORITY APPLN. INFO.: | | | | US 2001-299883P P 200106 21 |
| | | | | US 2002-375253P P 200204 23 |
| | | | | WO 2002-US20025 W 200206 21 |

AB The invention provides immunomodulatory compds. (CIC) and methods for immunomodulation of individuals using the immunomodulatory compds. The CIC comprises one or more nucleic acid moieties and one or more non-nucleic acid moieties such as dendrimer, polysaccharide, and crosslinked polysaccharide through phosphodiester, phosphorothioate ester, phosphorodithioate ester, and other linkages. The CIC is capable of stimulating production of interferon γ and α by human peripheral blood mononuclear cells, as well as human B cell proliferation. Endotoxin-free compns. comprising the CIC covalently or non-covalently conjugated with antigen and cationic microsphere are useful for treating disorders associated with IgE or Th2-type immune response such as allergy, asthma, infection, viral infection, idiopathic pulmonary fibrosis, and cancer.

IT **482661-50-7P**
RL: PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(chimeric immunomodulatory compds. comprising nucleic acids linked through dendrimer or polysaccharide spacer and antigen for treating allergy, infection or cancer)

RN 482661-50-7 HCAPLUS

CN DNA, d(T-sp-C-sp-G-sp-T-sp-C-sp-G-sp-A[oxy(mercaptophosphinylidene)oxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy(mercaptophosphinylidene)oxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy(mercaptophosphinylidene)oxy[2-[3,23-dimercapto-3,23-dioxido-41-[(P-thiothymidylyl-

(3'→5')-2'-deoxy-P-thiocytidylyl-(3'→5')-2'-deoxy-P-thioguanylyl-(3'→5')-P-thiothymidylyl-(3'→5')-2'-deoxy-P-thiocytidylyl-(3'→5')-2'-deoxy-P-thioguanylyl-(3'→5')-2'-deoxy-P-thio-3'-adenylyl)oxy]-2,4,7,10,13,16,19,22,27,30,33,36,39-tridecaoxa-3,23-diphosphahentetracont-1-yl]oxy]-1,2-ethanediyl]oxy(mercaptophosphinylidene)oxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy(mercaptophosphinylidene)oxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy(mercaptophosphinylidene)oxy]T-sp-C-sp-G-sp-T-sp-C-sp-G-sp-A) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C12Q

CC 15-2 (Immunochemistry)
Section cross-reference(s): 3, 63

IT Microspheres
**Polyelectrolytes**
(cationic; chimeric immunomodulatory compds. comprising nucleic acids linked through dendrimer or polysaccharide spacer and antigen for treating allergy, infection or cancer)

IT 245759-23-3DP, dendrimers 387819-74-1DP, dendrimers 482381-06-6P
482381-07-7P 482381-08-8P 482381-09-9P 482381-10-2P
482381-11-3P 482381-12-4P 482381-13-5P 482624-39-5DP,
dendrimers 482624-51-1DP, dendrimers 482624-53-3P 482624-56-6P
482624-58-8P 482624-60-2P 482624-62-4P 482624-64-6P
482624-66-8DP, conjugates with Ficoll 482624-66-8P 482661-31-4P
482661-32-5P 482661-33-6P 482661-34-7P 482661-35-8P
482661-36-9P 482661-37-0P 482661-38-1P 482661-39-2P
482661-40-5P 482661-41-6P 482661-42-7P 482661-43-8P
482661-44-9P 482661-45-0P 482661-46-1P 482661-47-2P
482661-48-3P 482661-49-4P **482661-50-7P** 482661-51-8P
482661-52-9P 482661-53-0P 482661-54-1P 482661-55-2P
482661-56-3P 482663-36-5P 482663-37-6P 482663-38-7P
482663-39-8P 482663-40-1P 482663-41-2P 482663-42-3P
482663-43-4P 482663-44-5P 482663-45-6P 482663-46-7P
482663-47-8P 482663-48-9P 482663-49-0P 482663-50-3P
482663-51-4P 482663-52-5P 482663-53-6P 482663-54-7P
482663-55-8P 482663-56-9P 482663-57-0P 482663-58-1P
482663-59-2P 482663-60-5P 482663-61-6P 482663-62-7P
482663-63-8P 482663-64-9P 482663-65-0P 482663-66-1P
482663-67-2P 482663-68-3P 482663-69-4P 482663-70-7P
482663-71-8P 482663-72-9P 482663-73-0P 482663-74-1P
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482663-79-6P 482663-80-9P 482663-81-0P 482663-82-1P
482663-83-2P 482663-84-3P 482663-85-4P 482663-86-5P
482663-87-6P 482663-88-7P 482663-89-8P 482663-90-1P
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483382-44-1P 483382-45-2P 483382-46-3P 483382-47-4P
483382-48-5P 483382-49-6P 483382-50-9P 483382-51-0P
483382-52-1P 483382-53-2P 483382-54-3P 483382-55-4P
483382-56-5P 483382-57-6P 483382-58-7P 483382-59-8P
483382-60-1P 483382-61-2P 483382-64-5P 483382-65-6P
483382-66-7P 483382-67-8P 483382-68-9P 483969-90-0DP,
dendrimers 483971-28-4DP, dendrimers 483973-10-0DP, dendrimers
RL: PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(chimeric immunomodulatory compds. comprising nucleic acids linked through dendrimer or polysaccharide spacer and antigen for treating allergy, infection or cancer)

L46 ANSWER 18 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:428665 HCAPLUS
DOCUMENT NUMBER: 137:10705
TITLE: Process for permanent reshaping of hair comprising thiol reducing composition
INVENTOR(S): Garnier, Nathalie; Burakov, Dina; Samain, Henri
PATENT ASSIGNEE(S): L'Oreal S.A., Fr.
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2002043679 | A2 | 20020606 | WO 2001-US44490 | 200111 29 |
| WO 2002043679 | A3 | 20030130 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| US 2002094321 | A1 | 20020718 | US 2000-725519 | 200011 30 |
| US 6623726 | B2 | 20030923 | | |
| AU 2002026999 | A5 | 20020611 | AU 2002-26999 | 200111 29 |

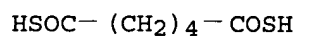
PRIORITY APPLN. INFO.:

| | | |
|---|---|---|
| US 2000-725519 | A | 200011 30 |
| WO 2001-US44490 | W | 200111 29 |

AB A process for permanently modifying the shape of hair by wrapping hair in multilayered, deformable sheets of material comprising a first layer of a perforated, deformable, and semi-rigid material, and a second layer of material containing a thiol reducing composition in an amount effective for permanently modifying the shape of hair, wherein the first layer is placed on or attached to the second layer; providing a desired shape to the multilayered, deformable sheet of material which is wrapped around the hair; and applying an oxidizing composition comprising an oxidizing agent capable of reconstituting the

disulfide bonds of the hair, wherein the oxidizing composition is applied either before or after liberating the hair from the multilayered, deformable sheet of material. In another variation, the hair is pre-treated with the reducing composition and then wrapped in a single deformable sheet for shaping. Multicomponent kits include a gelled reducing lotion containing thioglycolic acid and its disulfide.

IT **10604-70-3**, Dimercaptoadipic acid
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(process for permanent reshaping of hair comprising thiol reducing composition)
RN 10604-70-3 HCAPLUS
CN Hexanebis(thioic) acid (CA INDEX NAME)



IC ICM A61K007-09
CC 62-3 (Essential Oils and Cosmetics)
IT **Polyelectrolytes**
(cationic; process for permanent reshaping of hair comprising thiol reducing composition)
IT 52-90-4, Cysteine, biological studies 60-23-1, Cysteamine 68-11-1, Thioglycolic acid, biological studies 79-42-5, Thiolactic acid 107-96-0, β-Mercaptopropionic acid 505-73-7 758-08-7, Thioglycolamide 7722-84-1, Hydrogen peroxide, biological studies 7727-21-1, Potassium persulfate 7758-01-2, Potassium bromate 7758-19-2, Sodium chlorite 7775-27-1, Sodium persulfate **10604-70-3**, Dimercaptoadipic acid 11138-47-9, Sodium perborate 37265-25-1 38098-46-3, Monothioglycerol 80208-78-2, Glycerol thioglycolate 85112-98-7
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(process for permanent reshaping of hair comprising thiol reducing composition)

L46 ANSWER 19 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:885798 HCAPLUS
DOCUMENT NUMBER: 136:140458
TITLE: Formation of metallic minerals in the presence of natural exopolymers or lipids
AUTHOR(S): Hinze, U.; Thies, M.; Quitschau, P.; Scheidt, T.; Paradies, H. H.
CORPORATE SOURCE: Biotechnology & Physical Chemistry, University of Applied Sciences, Iserlohn, 58644, Germany
SOURCE: Process Metallurgy (2001), 11A, 85-94
CODEN: PMETEQ
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

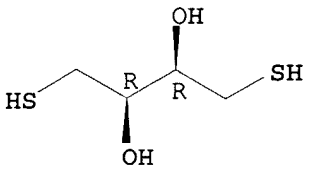
AB The formation of nano-clusters of zero-valent metals & alloys, e.g. Cu, Ag or FeCo (Fe26Co24) of sizes between 0.5 nm & 12 nm show surface plasma bands between 500-566 nm. The reduction of the metal salts to colloidal metals or to metal oxides of finite sizes in the presence of lipid A or exopolymers can be enhanced through addition of less than 10 mols. of dioctadecyldimethylammonium hydroxide per biosurfactant micelle in the presence of 10 μM L-threo-1,4-dimercapto-2,3-dibutanediol. The addition of the cationic surfactant influences the shape and the size of the crystalline nanomaterials. Due to the low CMC of lipid A or the exopolymer which is not affected by the cationic surfactant, enables one to

produce discrete sizes of e.g. Cu or Fe oxides as nanocrystals revealing magnetic, recording and light sensitive properties.

IT **16096-97-2**
RL: MOA (Modifier or additive use); USES (Uses)
(formation of metallic minerals in the presence of natural exopolymers or lipids)

RN 16096-97-2 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).




CC 66-4 (Surface Chemistry and Colloids)
Section cross-reference(s): 38, 75, 77

IT Annealing
Clusters
Hydration, chemical
Magnetic anisotropy
Magnetic field effects
Magnetism
Magnetization reversal
Nanoparticles
Neel temperature
Oxidation
Particle size
**Polyelectrolytes**
Reduction
Structural phase transition
Surface plasmon
(formation of metallic minerals in the presence of natural exopolymers or lipids)

IT 107-64-2, Dioctadecyldimethylammonium chloride 9005-32-7, Alginic acid 11138-66-2D, Xanthan, pyruvoylated **16096-97-2**
51822-75-4, Dioctadecyldimethylammonium hydroxide 75366-64-2
RL: MOA (Modifier or additive use); USES (Uses)
(formation of metallic minerals in the presence of natural exopolymers or lipids)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 20 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:265250 HCAPLUS
DOCUMENT NUMBER: 134:285592
TITLE: Delayed-release dosage form containing α-lipoic acid (derivatives)
INVENTOR(S): Schuhbauer, Hans; Pischel, Ivo; Bernkop-Schnuerch, Andreas
PATENT ASSIGNEE(S): SKW Trostberg A.-G., Germany
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

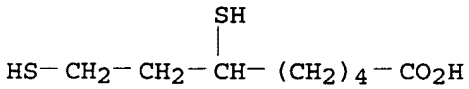
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2001024795 | A1 | 20010412 | WO 2000-EP9585 | 200009 29 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| DE 10045904 | A1 | 20011115 | DE 2000-10045904 | 200009 16 |
| DE 10045904 | B4 | 20070712 | | |
| CA 2385867 | A1 | 20010412 | CA 2000-2385867 | 200009 29 |
| EP 1216043 | A1 | 20020626 | EP 2000-969359 | 200009 29 |
| EP 1216043 | B1 | 20030507 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL | | | | |
| JP 2003510358 | T | 20030318 | JP 2001-527794 | 200009 29 |
| AT 239469 | T | 20030515 | AT 2000-969359 | 200009 29 |
| PT 1216043 | T | 20030930 | PT 2000-969359 | 200009 29 |
| ES 2193111 | T3 | 20031101 | ES 2000-969359 | 200009 29 |
| PRIORITY APPLN. INFO.: | | | DE 1999-19947330 A | 199910 01 |
| | | | DE 2000-10045904 A | 200009 16 |
| | | | WO 2000-EP9585 W | 200009 29 |

AB The invention relates to a delayed-release containing α-lipoic acid (derivs.). The dosage form consists of at least 1 cationic polymer, α-lipoic (derivs.) and at least 1 acid that is different from the lipoic acid. In addition to the controlled release of drugs for more than 8 h and prolonged GI transit times, an

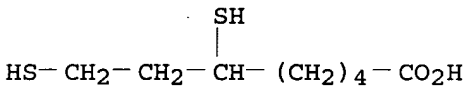
accelerated penetration of the drugs occurs. The dosage form is associated with an increased bioavailability of α-lipoic acid. Thus, 50 g chitosan was allowed to swell in 100 mL acetic acid and 750 mL water for 24 h. α-Lipoic acid (50 g) was then added and homogenized and subjected to wet granulation. The dried granules were then compressed to tablets.

IT **462-20-4**, Dihydrolipoic acid **462-20-4D**, Dihydrolipoic acid, salts **98441-85-1 119365-69-4**
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(delayed-release dosage form containing α-lipoic acid)

RN 462-20-4 HCAPLUS
CN Octanoic acid, 6,8-dimercapto- (CA INDEX NAME)

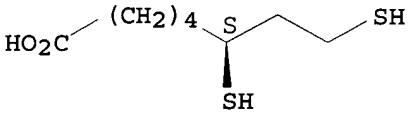


RN 462-20-4 HCAPLUS
CN Octanoic acid, 6,8-dimercapto- (CA INDEX NAME)



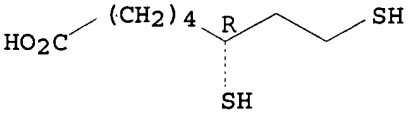
RN 98441-85-1 HCAPLUS
CN Octanoic acid, 6,8-dimercapto-, (6S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 119365-69-4 HCAPLUS
CN Octanoic acid, 6,8-dimercapto-, (6R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM A61K031-385
ICS A61K009-20
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 7, 62
IT **Polyelectrolytes**
(cationic; delayed-release dosage form containing α-lipoic acid)
IT 50-70-4, Sorbitol, biological studies 56-81-5, Glycerin, biological studies 56-86-0, GLutamic acid, biological studies

57-55-6, Propylene glycol, biological studies 63-42-3, Lactose 64-19-7, Acetic acid, biological studies 69-65-8, Mannitol 102-76-1, Glycerin triacetate 115-77-5, Pentaerythritol, biological studies **462-20-4**, Dihydrolipoic acid **462-20-4D**, Dihydrolipoic acid, salts 557-04-0 637-12-7, Aluminum stearate 1077-27-6, (S)-α-Lipoic acid 1077-28-7, 1,2-Dithiolane-3-pentanoic acid 1077-28-7D, 1,2-Dithiolane-3-pentanoic acid, salts 1200-22-2, α-Lipoic acid 1309-48-4, Magnesium oxide (MgO), biological studies 1343-93-7 1344-28-1, Aluminum oxide (Al2O3), biological studies 1592-23-0, Calcium stearate 7320-45-8 7631-86-9, Silica, biological studies 7647-01-0, Hydrochloric acid, biological studies 7790-76-3 9005-25-8, Starch, biological studies 9005-25-8D, Starch, derivs., biological studies 9012-76-4, Chitosan 9050-36-6, Maltodextrin 12207-88-4 13408-62-3 13463-67-7, Titanium oxide, biological studies 14807-96-6, Talc, biological studies 15453-67-5 25104-18-1, Poly(L-lysine) 25395-31-7, Glycerin diacetate 26446-35-5, Glycerin monoacetate 38000-06-5, Poly(L-lysine) 70694-72-3, Chitosan hydrochloride 84563-76-8, Chitosan glutamate 87582-10-3, Chitosan acetate **98441-85-1** **119365-69-4**
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(delayed-release dosage form containing α-lipoic acid)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 21 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:608442 HCAPLUS
DOCUMENT NUMBER: 133:190197
TITLE: Use of polycations in the stabilization and extraction of nucleic acids
INVENTOR(S): Erbacher, Christoph; Bastian, Helge; Wyrich, Ralf; Oelmuller, Uwe; Manz, Thomas
PATENT ASSIGNEE(S): Qiagen G.m.b.H., Germany
SOURCE: Eur. Pat. Appl., 49 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| EP 1031626 | A1 | 20000830 | EP 2000-103816 | 200002 23 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| CA 2299119 | A1 | 20000823 | CA 2000-2299119 | 200002 22 |
| JP 2000342259 | A | 20001212 | JP 2000-45524 | 200002 23 |
| PRIORITY APPLN. INFO.: | | | EP 1999-103457 A | 199902 23 |

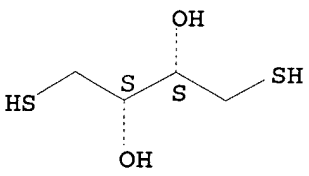
AB Polycations that can be used to stabilize nucleics during extraction and purification are described. The compds. have two closely-linked cationic centers, preferably nitrogens. Complexes between these polycations and nucleic acids are larger and sediment more rapidly than those prepared with prior art cationic polymers such as tetradecyltrimethylammonium oxalate. Use of the reagents to purify DNA and RNA from a number of sources is demonstrated.

IT **3483-12-3**, Dithiothreitol
RL: MOA (Modifier or additive use); USES (Uses)
(in cell lysis; use of polycations in stabilization and extraction of nucleic acids)

RN 3483-12-3 HCAPLUS

CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.




IC ICM C12N015-10
ICS C07D295-037; C07C211-63

CC 9-9 (Biochemical Methods)
Section cross-reference(s): 3

IT **Polyelectrolytes**
(cationic; use of polycations in stabilization and extraction of nucleic acids)

IT 126-73-8, Tributyl phosphate, uses **3483-12-3**, Dithiothreitol 7664-38-2D, Phosphoric acid, derivs., uses
RL: MOA (Modifier or additive use); USES (Uses)
(in cell lysis; use of polycations in stabilization and extraction of nucleic acids)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 22 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:451475 HCAPLUS

DOCUMENT NUMBER: 133:185262

TITLE: Nano- and microengineering. Three-dimensional colloidal photonic crystals prepared from submicrometer-sized polystyrene latex spheres pre-coated with luminescent **polyelectrolyte**/nanocrystal shells

AUTHOR(S): Rogach, Andrey; Susha, Andrei; Caruso, Frank; Sukhorukov, Gleb; Kornowski, Andreas; Kershaw, Steve; Mohwald, Helmuth; Eychmuller, Alexander; Weller, Horst

CORPORATE SOURCE: Institute of Physical Chemistry, University of Hamburg, Hamburg, D-20146, Germany

SOURCE: Advanced Materials (Weinheim, Germany) (2000), 12(5), 333-337
CODEN: ADVMEW; ISSN: 0935-9648

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

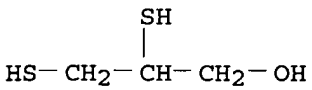
LANGUAGE: English

AB The fabrication of 3D colloidal photonic crystals is reported on. The crystals were prepared by the self-organization of submicrometer-sized polystyrene latex spheres. Consecutive electrostatic adsorption of charged **polyelectrolytes** and luminescent semiconductor CdTe and CdTe(S) nanocrystals were used to cover the polystyrene latex spheres. The uncovered and covered spheres were studied with TEM.

IT **59-52-9**, Dithioglycerol
RL: RCT (Reactant); RACT (Reactant or reagent)
(colloidal 3D photonic nanocrystals prepared from submicrometer-sized polystyrene latex spheres pre-coated with luminescent **polyelectrolyte**/nanocrystal shells)

RN 59-52-9 HCAPLUS

CN 1-Propanol, 2,3-dimercapto- (CA INDEX NAME)



CC 73-12 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 66, 76

IT Nanocrystals
Photonic crystals
(colloidal 3D photonic nanocrystals prepared from submicrometer-sized polystyrene latex spheres pre-coated with luminescent **polyelectrolyte**/nanocrystal shells)

IT Colloids
(crystalline; colloidal 3D photonic nanocrystals prepared from submicrometer-sized polystyrene latex spheres pre-coated with luminescent **polyelectrolyte**/nanocrystal shells)

IT Luminescence
UV and visible spectra
(of colloidal 3D photonic nanocrystals prepared from submicrometer-sized polystyrene latex spheres pre-coated with luminescent **polyelectrolyte**/nanocrystal shells)

IT 9003-53-6, Polystyrene
RL: NUU (Other use, unclassified); USES (Uses)
(colloidal 3D photonic nanocrystals prepared from submicrometer-sized polystyrene latex spheres pre-coated with luminescent **polyelectrolyte**/nanocrystal shells)

IT 1306-25-8, Cadmium telluride, properties 106495-64-1, Cadmium sulfide telluride
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(colloidal 3D photonic nanocrystals prepared from submicrometer-sized polystyrene latex spheres pre-coated with luminescent **polyelectrolyte**/nanocrystal shells)

IT **59-52-9**, Dithioglycerol 96-27-5, 1-Thioglycerol
RL: RCT (Reactant); RACT (Reactant or reagent)
(colloidal 3D photonic nanocrystals prepared from submicrometer-sized polystyrene latex spheres pre-coated with luminescent **polyelectrolyte**/nanocrystal shells)

REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

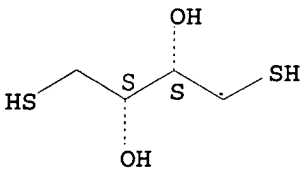
L46 ANSWER 23 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:731481 HCAPLUS
DOCUMENT NUMBER: 128:39545
TITLE: Hydrophobically-modified bioadhesive **polyelectrolytes** and methods relating thereto
INVENTOR(S): Inoue, Tadaaki; Chen, Guohua; Hoffman, Allan S.
PATENT ASSIGNEE(S): University of Washington, USA
SOURCE: Jpn. Kokai Tokkyo Koho, 58 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 09286921 | A | 19971104 | JP 1995-254421 | 199508 25 |
| US 5770627 | A | 19980623 | US 1995-515747 | 199508 16 |
| PRIORITY APPLN. INFO.: | | | US 1995-515747 A | 199508 16 |

AB Hydrophobically-modified bioadhesive **polyelectrolytes** containing a bioadhesive **polyelectrolyte** and a hydrophobic component are disclosed. Also disclosed are **polyelectrolyte** -agent compns. wherein the hydrophobically-modified bioadhesive **polyelectrolyte** is loaded with a pharmaceutically, cosmetically or prophylactically acceptable agent [ e.g. doxorubicin-HCl].

IT **3483-12-3**, DTT
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
RN 3483-12-3 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.




IC ICM C08L101-00
ICS A61K047-32; C08F008-00; C08J005-18; C08L051-00; C08L053-00; C08L067-02; C08L071-02; C08L075-04; C08L083-04; C08L101-08; C08F020-04
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 38, 62
ST hydrophobically modified bioadhesive **polyelectrolyte** pharmaceutical carrier; drug delivery system doxorubicin

IT Adhesives
(biol.; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
IT Drug delivery systems
(carriers; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
IT Drug delivery systems
(gels; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
IT Dissolution rate
(hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
IT Peptides, biological studies
Proteins, general, biological studies
RL: PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
IT **Polyelectrolytes**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
IT Drug delivery systems
(ointments; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
IT Drug delivery systems
(oral; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
IT Drug delivery systems
(powders; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
IT Drug delivery systems
(solns.; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
IT Drug delivery systems
(systemic; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
IT Drug delivery systems
(topical; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
IT 58-55-9P, Theophylline, biological studies 318-98-9P, Propranolol hydrochloride 9001-63-2P, Lysozyme 25316-40-9P, Doxorubicin hydrochloride
RL: PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
IT 78-67-1, Aibn **3483-12-3**, DTT 57757-57-0 122159-53-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
IT 9011-14-7DP, Poly(methyl methacrylate), amino-terminated 25322-25-2P, Acrylic acid-methyl methacrylate copolymer 26355-01-1DP, Hydroxyethyl methacrylate-methyl methacrylate copolymer, amino-terminated 39921-94-3P 199606-95-6P 199606-97-8P 199606-99-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(hydrophobically-modified bioadhesive **polyelectrolytes**

as carriers for drugs or other products)

L46 ANSWER 24 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:224098 HCAPLUS
DOCUMENT NUMBER: 126:209293
TITLE: A colorimetric method of detecting thiol or mercaptan compounds and its use for oral malodor determination
INVENTOR(S): Kerschensteiner, Daniel A.
PATENT ASSIGNEE(S): The Oralife Group, Inc., Can.; Kerschensteiner, Daniel, A.
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9705482 | A1 | 19970213 | WO 1996-US12488 | 19960730 |

W: CA, GB, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

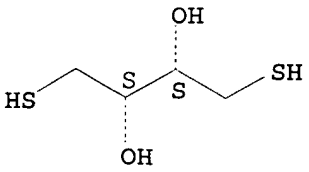
PRIORITY APPLN. INFO.: US 1995-1711P P 19950731

AB The invention relates to a method for detecting the presence of thiol, mercaptans, sulfhydryl or volatile sulfur compds. in a sample and to reagents and reaction mixts. which can be used in detecting such compds. More particularly, it relates to colloidal metal sol suspensions which have a flocculated state visually distinguishable from a monodisperse suspended state and can be used in detecting thiol compds. The tensioned or sensitized state of colloidal metal sol suspensions are prepared and subsequently exposed to a sample which may contain thiol compds. The presence of such compds. can be determined by the color change of the soluble The reagents and reaction mixts. are used in the diagnosis of halitosis, as halitosis is related to the presence of thiol and volatile sulfur compds. in the breath sample of an individual. The invention also relates to halitosis diagnostic kits comprising a reagent or reaction mixture of the invention and a blow tube.

IT **3483-12-3**, Dithiothreitol **6725-64-0**, Methane dithiol
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(colorimetric detection of thiol or mercaptan compds. in breath in halitosis diagnosis)

RN 3483-12-3 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 6725-64-0 HCAPLUS
CN Methanedithiol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

HS— $CH_2$ — SH

IC ICM G01N033-00
CC 9-5 (Biochemical Methods)
Section cross-reference(s): 14, 80
IT Detergents
**Polyelectrolytes**
Respiratory air
(colorimetric detection of thiol or mercaptan compds. in breath in halitosis diagnosis)
IT 52-90-4, Cysteine, analysis 60-23-1, 2-Mercaptoethylamine 60-24-2, 2-Mercaptoethanol 68-11-1, Mercaptoacetic acid, analysis 70-18-8, GSH, analysis 74-93-1, Methyl mercaptan, analysis 79-42-5, Thiolactic acid 96-27-5, 3-Mercapto-1,2-propanediol 107-96-0, 3-Mercaptopropionic acid 147-93-3, Thiosalicylic acid 872-35-5, 2-Mercaptoimidazole 3375-50-6, 2-Mercaptoethanesulfonic acid **3483-12-3**, Dithiothreitol 6325-91-3, 2-Mercapto-5-nitrobenzimidazole **6725-64-0**, Methane dithiol 7704-34-9D, Sulfur, compds., analysis 7783-06-4, Hydrogen sulfide, analysis
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(colorimetric detection of thiol or mercaptan compds. in breath in halitosis diagnosis)

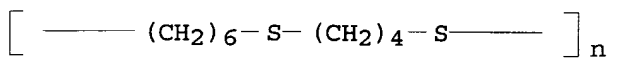
L46 ANSWER 25 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:463682 HCAPLUS
DOCUMENT NUMBER: 122:215476
TITLE: Super ion conducting polymers for solid polymer electrolytes
AUTHOR(S): Ogata, N.; Sanui, K.; Rikukawa, M.; Yamada, S.; Watanabe, M.
CORPORATE SOURCE: Dep. Chem., Sophia Univ., Tokyo, 102, Japan
SOURCE: Synthetic Metals (1995), 69(1-3), 521-4
CODEN: SYMEDZ; ISSN: 0379-6779
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB New ion conductive polymer complexes were formed by dissolving various polycation salts into room temperature molten salts containing AlCl3. For viscoelastic films based on polypyridinium salts, the ionic motion in the complexes was decoupled with the segmental motion of the polypyridiniums. The ionic conductivities of the polymer complexes were 10-100 times higher than poly(ethylene oxide)-based polymers at room temperature and were affected by their composition Systems based on polyvinylpyridinium salts exhibited higher and less temperature

dependent ion conductivities than the other solid polymer electrolytes.

IT **71674-57-2P**, 1,4-Dibromobutane-1,6-hexanedithiol copolymer, sru
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and ionic conductivity of quaternized polycations in molten aluminum chloride solns.)

RN 71674-57-2 HCAPLUS

CN Poly(thio-1,4-butanediylthio-1,6-hexanediyl) (9CI) (CA INDEX NAME)



CC 37-5 (Plastics Manufacture and Processing)
Section cross-reference(s): 38, 52, 76

IT **Polyelectrolytes**
(cationic, solid; preparation and ionic conductivity of quaternized polycations in molten aluminum chloride solns.)

IT 7446-70-0P, Aluminum chloride, preparation 26780-21-2P 28728-55-4P 31987-01-6P 60723-01-5P, 4,4'-Bipyridine-1,2-dibromoethane copolymer, sru 60747-55-9P, 4-Vinylpyridine homopolymer compound with butyl bromide 68393-49-7P, 1,6-Hexane dichloride-N,N,N',N'-tetramethyl-1,3-propylenediamine copolymer, sru 70876-96-9P, 4-Vinylpyridine homopolymer compound with butyl chloride **71674-57-2P**, 1,4-Dibromobutane-1,6-hexanedithiol copolymer, sru 71693-83-9P, 1,4-Dibromobutane-1,6-hexanedithiol copolymer 74551-38-5P, 4,4'-Bipyridine-1,2-dichloroethane copolymer, sru 84943-63-5P, 4,4'-Bipyridine-1,2-dibromoethane copolymer 145425-78-1P 162230-34-4P, 1,6-Hexane dichloride-N,N,N',N'-tetramethyl-1,3-propylenediamine copolymer 162230-35-5P, 4,4'-Bipyridine-1,2-dichloroethane copolymer
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and ionic conductivity of quaternized polycations in molten aluminum chloride solns.)

L46 ANSWER 26 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:229746 HCAPLUS
DOCUMENT NUMBER: 118:229746
TITLE: Methods and reagents for performing ion-capture immunoassays for digoxin and other analytes
INVENTOR(S): Kline, Steven; Jou, Yi Her; Stroupe, Stephen D.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 97 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9221975 | A1 | 19921210 | WO 1992-US2997 | 199204 10 |

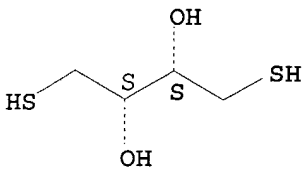
W: CA, JP

| | | | | |
|---|---|---|---|---|
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE | | | | |
| CA 2110296 | A1 | 19921210 | CA 1992-2110296 | 199204 10 |
| EP 586574 | A1 | 19940316 | EP 1992-913231 | 199204 10 |
| EP 586574 | B1 | 19971210 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE | | | | |
| JP 06508214 | T | 19940914 | JP 1992-500397 | 199204 10 |
| AT 161104 | T | 19971215 | AT 1992-913231 | 199204 10 |
| ES 2112320 | T3 | 19980401 | ES 1992-913231 | 199204 10 |
| US 5459078 | A | 19951017 | US 1993-74719 | 199306 09 |
| PRIORITY APPLN. INFO.: | | | US 1991-707483 A | 199105 30 |
| | | | US 1988-150278 B2 | 198801 29 |
| | | | US 1989-375029 B2 | 198907 07 |
| | | | WO 1992-US2997 W | 199204 10 |

AB Digoxin assays are disclosed which use a capture reagent, involving a 1st binding member conjugated to a polymeric anion substance, and a solid-phase material containing a reaction site comprising a polymeric cation substance having a N content of ≥2%. A test sample suspected of containing the analyte may be contacted with the capture reagent to form a charged capture reagent-analyte complex. The complex is then contacted to the oppositely charged solid phase to attract, attach, and immobilize the complex. Thus, an immunoassay for digoxin (antigen capture format) used a digoxin-IgG-poly(glutamic acid) capture reagent (preparation described) and, as solid phase, a fiber matrix coated with Celquat L-200 (a polymeric pos. charged quaternary compound); the indicator reagent was alkaline phosphatase-conjugated anti-digoxin antibody. The assay procedure included incubation of digoxin samples (0-50.0 ng/mL; prepared in serum) with indicator reagent, addition of capture reagent, incubation, application to solid phase, washing, addition of enzyme substrate, and measurement of fluorescence. Results demonstrated that as the digoxin test sample concentration increased, there was a corresponding decrease in the formation of capture reagent-indicator reagent complex, and the amount of detectable label associated with the solid phase decreased. Ion-capture assays for carcinoembryonic antigen, mouse Ig, human chorionic gonadotropin, anti-progesterone antibody, etc. are also described.

IT **3483-12-3**, 1,4-Dithiothreitol
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in polyglutamic acid-monoclonal anti-carcinoembryonic antigen antibody conjugate preparation for ion-capture immunoassay)
RN 3483-12-3 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.




IC ICM G01N033-536
ICS G01N033-537; G01N033-538; G01N033-541; G01N033-543; G01N033-544; G01N033-546; G01N033-551; G01N033-553
CC 9-10 (Biochemical Methods)
Section cross-reference(s): 1, 2, 15
IT **Polyelectrolytes**
(anionic, conjugates with specific-binding member, for ion-capture immunoassay for digoxin)
IT **Polyelectrolytes**
(cationic, immobilized, for ion-capture specific-binding member assay)
IT 69-78-3, 5,5'-Dithiobis(2-nitrobenzoic acid) 107-15-3, 1,2-Ethanediamine, reactions 2321-07-5, Fluorescein **3483-12-3**, 1,4-Dithiothreitol 26247-79-0, Polyglutamic acid sodium salt 58626-38-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in polyglutamic acid-monoclonal anti-carcinoembryonic antigen antibody conjugate preparation for ion-capture immunoassay)

L46 ANSWER 27 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:142963 HCAPLUS
DOCUMENT NUMBER: 118:142963
TITLE: Devices for performing ion-capture binding assays
INVENTOR(S): Jou, Yi Her; Stroupe, Stephen D.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9221980 | A1 | 19921210 | WO 1992-US2982 | 199204 10 |

W: CA, JP
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE

| | | | | |
|---|---|---|---|---|
| CA 2110049 | A1 | 19921210 | CA 1992-2110049 | 199204 10 |
| CA 2110049 | C | 20040810 | | |
| EP 641442 | A1 | 19950308 | EP 1992-911929 | 199204 10 |
| EP 641442 | B1 | 19971217 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE | | | | |
| AT 161332 | T | 19980115 | AT 1992-911929 | 199204 10 |
| ES 2112906 | T3 | 19980416 | ES 1992-911929 | 199204 10 |
| US 5670381 | A | 19970923 | US 1995-436950 | 199505 08 |
| PRIORITY APPLN. INFO.: | | | US 1991-708137 A | 199105 30 |
| | | | US 1988-150278 B2 | 198801 29 |
| | | | US 1989-375029 B2 | 198907 07 |
| | | | WO 1992-US2982 W | 199204 10 |
| | | | US 1994-233202 B1 | 199404 26 |

AB Assay devices are disclosed which employ a capture reagent, involving a specific-binding member attached to a charged substance, and a porous material containing a capture or reaction zone that is oppositely charged with respect to the capture reagent. In 1 embodiment, a test sample suspected of containing the analyte of interest is contacted with the capture reagent to form a charged capture reagent-complex. The complex is then contacted to the opp. charged capture or reaction zone to attract, attach, and immobilize the complex. With an appropriate indicator reagent, both sandwich and competitive assays can be performed. Thus, an immunoassay for digoxin (antigen capture format) used a digoxin-IgG-poly(glutamic acid) capture reagent (preparation described) and, as solid phase, a fiber matrix coated with Celquat L-200 ( a polymeric pos. charged quaternary compound); the indicator reagent was alkaline phosphatase-conjugated anti-dioxin antibody. The assay procedure included incubation of digoxin samples (0-50.0 ng/mL; prepared in serum) with indicator reagent, addition of capture reagent, incubation, application to solid phase, washing, addition of enzyme substrate, and measurement of fluorescence. Results demonstrated that as the digoxin test sample concentration increased, there was a corresponding decrease in the formation of capture reagent-indicator reagent complex, and the amount of detectable label associated with the solid

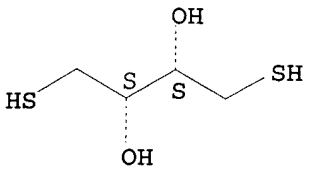
phase decreased. Ion-capture assays for carcinoembryonic antigen, mouse Ig, human chorionic gonadotropin, anti-progesterone antibody, etc. are also described.

IT **3483-12-3**, 1,4-Dithiothreitol
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in polyglutamic acid-monoclonal anti-carcinoembryonic antigen antibody conjugate preparation for ion-capture immunoassay)

RN 3483-12-3 HCAPLUS

CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.




IC ICM G01N033-566
ICS G01N033-543; G01N033-544; G01N033-545

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 1, 2, 15

IT **Polyelectrolytes**
(anionic, for ion-capture specific-binding assay)

IT 69-78-3, 5,5'-Dithiobis(2-nitrobenzoic acid) 107-15-3D, 1,2-Ethanediamine, fluorescein reaction products, reactions 2321-07-5D, Fluorescein, ethylenediamine reaction products **3483-12-3**, 1,4-Dithiothreitol 26247-79-0, Polyglutamic acid sodium salt 58626-38-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in polyglutamic acid-monoclonal anti-carcinoembryonic antigen antibody conjugate preparation for ion-capture immunoassay)

L46 ANSWER 28 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:99031 HCAPLUS
DOCUMENT NUMBER: 114:99031
TITLE: Studies on the decondensation of human, mouse, and bull sperm nuclei by heparin and other polyanions
AUTHOR(S): Jager, S.; Wijchman, J.; Kremer, J.
CORPORATE SOURCE: Dep. Obstet. Gynaecol., Univ. Hosp., Groningen, 9713 EZ, Neth.
SOURCE: Journal of Experimental Zoology (1990), 256(3), 315-22
CODEN: JEZOAO; ISSN: 0022-104X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Heparin-induced decondensation of human, mouse, and bull sperm nuclei is reported. Decondensation did not occur if the spermatozoa were intact but only if the membranes were severely damaged by freezing and thawing or by treatment with a detergent. If a thiol was absent, decondensation of human sperm nuclei was usually a relatively slow process, with large interindividual variation. Mouse and bull sperm nuclei did not decondense in the absence of a thiol. With a thiol, relatively low concns. of heparin induced a rapid decondensation of the sperm nuclei of all 3 species. The

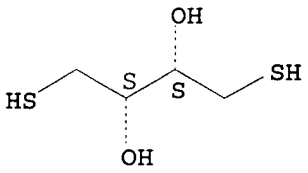
decondensation activity was not specific for heparin; other polyanions were also active, with heparin being the most effective compound It is supposed that heparin and other polyanions induce sperm nuclear decondensation because they deplete protamines from the chromatin. Thus the neg. charged phosphate groups of the DNA are no longer opposed by pos. charged protamines. Consequently the mutual repulsion of unopposed phosphate groups causes the DNA mols. to stretch, which results in an increase of the sperm nuclear volume Since heparin and other polyanions induce decondensation under physiol. pH and temperature, polyanions might also be active in the oocyte.

IT **3483-12-3**, Dithiothreitol
RL: BIOL (Biological study)
(sperm nucleus decondensation by heparin and other polyanions enhancement by, in humans and laboratory animals)

RN 3483-12-3 HCAPLUS

CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.




CC 13-6 (Mammalian Biochemistry)
Section cross-reference(s): 6

IT **Polyelectrolytes**
(anionic, sperm nucleus decondensation induction by, in humans and laboratory animals)

IT **3483-12-3**, Dithiothreitol
RL: BIOL (Biological study)
(sperm nucleus decondensation by heparin and other polyanions enhancement by, in humans and laboratory animals)

L46 ANSWER 29 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1989:136571 HCAPLUS
DOCUMENT NUMBER: 110:136571
TITLE: Process for the reversible aggregation of particles
INVENTOR(S): Tarnowski, Thomas L.; Lin, Cheng I.; Ullman, Edwin F.
PATENT ASSIGNEE(S): Syntex (U.S.A.), Inc., USA
SOURCE: Ger. Offen., 17 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 3816953 | A1 | 19881208 | DE 1988-3816953 | 198805 18 |
| FR 2615621 | A1 | 19881125 | FR 1988-6658 | |

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|---|---|---|---|---|
| | | | | 198805 18 |
| JP 63314466 | A | 19881222 | JP 1988-121680 | 198805 18 |
| GB 2206206 | A | 19881229 | GB 1988-11751 | 198805 18 |
| GB 2206206 | B | 19910925 | | |
| CA 1322067 | C | 19930907 | CA 1988-567176 | 198805 18 |
| US 5136095 | A | 19920804 | US 1988-278870 | 198812 01 |
| US 5370993 | A | 19941206 | US 1992-881987 | 199205 12 |
| US 5405743 | A | 19950411 | US 1994-267636 | 199406 29 |

| | | |
|---|---|---|
| PRIORITY APPLN. INFO.: | US 1987-51978 | A 198705 19 |
| | US 1988-278870 | A3 198812 01 |
| | US 1992-881987 | A1 199205 12 |

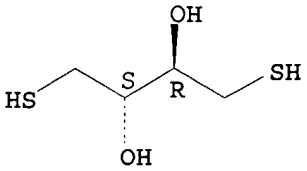
AB In the title process, useful in the separation of cells from, and anal. of, biol. fluids, the fluid is mixed with a polyionic polymer, left until particles aggregate, and the particles are treated with a reagent which cleaves the polymer, permitting the aggregation to reverse. Stirring 1.043 g (SCH2CH2NMe2)2 and 1.03 g Br(CH2)3Br in 4 mL DMSO at room temperature for 7 days gave an ionene polymer (I). A latex of 0.88 mg/mL particles of acrylated polystyrene was agglomerated by high-mol. weight I at concns. of 0.200 mg/L, but not at 0.050 mg/L, and the agglomeration was inhibited by the presence of 0.49 mM dithioerythritol.

IT **6892-68-8**, Dithioerythritol
RL: USES (Uses)
(inhibitors, for reversible agglomeration of particles by **polyelectrolytes**)

RN 6892-68-8 HCAPLUS

CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3S)-rel- (CA INDEX NAME)

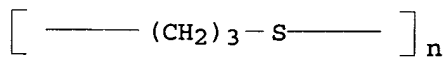
Relative stereochemistry.



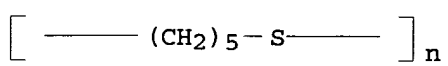
IC ICM C08G073-00
ICS B01D021-01; B03C001-30; G01N027-00
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 9, 63
ST agglomeration particle reversible **polyelectrolyte**; latex agglomeration reversible **polyelectrolyte**; ionene polymer agglomerating agent; cell agglomeration reversible **polyelectrolyte**; analysis particle agglomeration reversible; dithioerythritol inhibitor agglomeration reversible
IT **Polyelectrolytes**
Ionene polymers
RL: USES (Uses)
(agglomerating agents, for reversible agglomeration of particles)
IT Blood
(cell separation from, by reversible agglomeration with **polyelectrolytes**)
IT Analysis
(reversible agglomeration of particles by **polyelectrolytes** in)
IT Magnetic substances
(reversible agglomeration of particles by **polyelectrolytes** in presence of)
IT Agglomeration
(reversible, of particles by **polyelectrolytes**)
IT Cell
(separation of, from biol. fluids by reversible agglomeration with **polyelectrolytes**)
IT **6892-68-8**, Dithioerythritol 7790-28-5
RL: USES (Uses)
(inhibitors, for reversible agglomeration of particles by **polyelectrolytes**)

L46 ANSWER 30 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1986:110907 HCAPLUS
DOCUMENT NUMBER: 104:110907
ORIGINAL REFERENCE NO.: 104:17583a,17586a
TITLE: Preparation and characterization of polymeric solid electrolytes from poly(alkylene sulfides) and silver salts
AUTHOR(S): Clancy, S.; Shriver, D. F.; Ochrymowycz, L. A.
CORPORATE SOURCE: Mater. Res. Cent., Northwestern Univ., Evanston, IL, 60201, USA
SOURCE: Macromolecules (1986), 19(3), 606-11
CODEN: MAMOBX; ISSN: 0024-9297
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Polymeric solid electrolytes were prepared by complex formation between Ag salts and various poly(alkylene sulfides). The polymer-salt complexes of poly(pentamethylene sulfide) (I) [**57514-73-5**] and AgNO3 had total ionic conductivities comparable to poly(ethylene oxide). IR spectroscopy indicated pairing between Ag+ and NO3- ions. The transference number for Ag+ in I·AgNO3, .apprx.0.9, was much higher than that of most other polymeric solid electrolytes.
IT **28758-48-7DP**, reaction products with silver nitrate
**57514-73-5DP**, reaction products with silver nitrate
**57514-74-6DP**, reaction products with silver nitrate
RL: SPN (Synthetic preparation); PREP (Preparation)
(electrolytes, preparation and properties of)
RN 28758-48-7 HCAPLUS

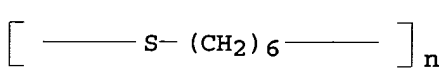
CN Poly(thio-1,3-propanediyl) (9CI) (CA INDEX NAME)



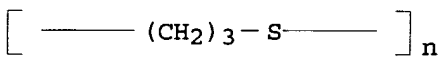
RN 57514-73-5 HCAPLUS
CN Poly(thio-1,5-pentanediyl) (9CI) (CA INDEX NAME)



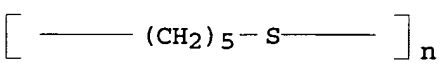
RN 57514-74-6 HCAPLUS
CN Poly(thio-1,6-hexanediyl) (9CI) (CA INDEX NAME)



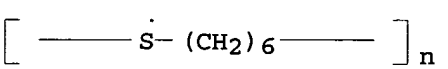
IT **28758-48-7P 57514-73-5P 57514-74-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with silver nitrate)
RN 28758-48-7 HCAPLUS
CN Poly(thio-1,3-propanediyl) (9CI) (CA INDEX NAME)



RN 57514-73-5 HCAPLUS
CN Poly(thio-1,5-pentanediyl) (9CI) (CA INDEX NAME)



RN 57514-74-6 HCAPLUS
CN Poly(thio-1,6-hexanediyl) (9CI) (CA INDEX NAME)



CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 35
ST polythioalkylene silver complex **polyelectrolyte**; elec cond polythiopentamethylene silver; transference number polythiopentamethylene silver
IT Transference number
(of poly(alkylene sulfide)-silver salt **polyelectrolytes**)
IT **Polyelectrolytes**

(poly(alkylene sulfide)-silver salt complexes, preparation and properties of)
IT Polythioalkylenes
RL: SPN (Synthetic preparation); PREP (Preparation)
(reaction products with silver compds., **polyelectrolytes**, preparation and properties of)
IT Electric conductivity and conduction
(ionic, of poly(alkylene sulfide)-silver salt **polyelectrolytes**)
IT 2923-28-6DP, reaction products with poly(alkylene sulfides)
7761-88-8DP, reaction products with poly(alkylene sulfides)
24936-67-2DP, reaction products with silver nitrate 24937-37-9DP, reaction products with silver nitrate **28758-48-7DP**, reaction products with silver nitrate 37325-04-5DP, reaction products with silver nitrate **57514-73-5DP**, reaction products with silver nitrate **57514-74-6DP**, reaction products with silver nitrate 64773-31-5DP, reaction products with silver nitrate 64773-32-6DP, reaction products with silver nitrate 99809-26-4DP, reaction products with silver nitrate 99809-27-5DP, reaction products with silver nitrate
RL: SPN (Synthetic preparation); PREP (Preparation)
(electrolytes, preparation and properties of)
IT 24936-67-2P 24937-37-9P **28758-48-7P** 37325-04-5P **57514-73-5P** **57514-74-6P** 64773-31-5P 64773-32-6P 99809-26-4P 99809-27-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with silver nitrate)

L46 ANSWER 31 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1980:527876 HCAPLUS
DOCUMENT NUMBER: 93:127876
ORIGINAL REFERENCE NO.: 93:20329a,20332a
TITLE: A flavoenzyme model: facile oxidation of thiols by a flavin immobilized in cationic **polyelectrolytes**
AUTHOR(S): Shinkai, Seiji; Yamada, Shinji; Ando, Reiko; Kunitake, Toyoki
CORPORATE SOURCE: Fac. Eng., Kyushu Univ., Fukuoka, 812, Japan
SOURCE: Bioorganic Chemistry (1980), 9(2), 238-47
CODEN: BOCMBM; ISSN: 0045-2068
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The reactions of a polymer-bound flavin with thiols (2-mercaptoethanol, glutathione, thiophenol, and 1,4-butanedithiol) are markedly accelerated, when compared with that of a monomeric flavin. The rate enhancements observed were 30- to 6000-fold. In particular, thiophenol, which had been believed not to be oxidized by flavin in nonenzymic systems, was oxidized most rapidly among the monothiols examined The reaction rates were improved by incorporation of a dodecyl group into the flavin-containing polymer. Thus, the hydrophobic nature of the cationic polymer matrix was responsible for the large rate enhancement among other factors.
IT **1191-08-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of, by immobilized flavins)
RN 1191-08-8 HCAPLUS
CN 1,4-Butanedithiol (CA INDEX NAME)

HS— $(CH_2)_4$ — SH

CC 7-4 (Enzymes)
IT 60-24-2 70-18-8, biological studies 108-98-5, biological studies
**1191-08-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of, by immobilized flavins)

L46 ANSWER 32 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1979:71492 HCAPLUS
DOCUMENT NUMBER: 90:71492
ORIGINAL REFERENCE NO.: 90:11311a,11314a
TITLE: Catalyses by polymer complexes. Part 3. Polymer micellar catalysis of isoalloxazine (flavin) oxidation of thiols
AUTHOR(S): Shinkai, Seiji; Ando, Reiko; Kunitake, Toyoki
CORPORATE SOURCE: Dep. Org. Synth., Kyushu Univ., Fukuoka, Japan
SOURCE: Journal of the Chemical Society, Perkin Transactions 2: Physical Organic Chemistry (1972-1999) (1978), (12), 1271-7
CODEN: JCPKBH; ISSN: 0300-9580
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The polymers used in the title study were poly(2-ethyl-1-vinylimidazole) quaternized with EtBr and lauryl bromide [lauryl group content: 8.8 mol % (L-9), 28.9 mol % (L-29), and 40.9 mol % (L-41), resp.]. Addition of L-29 and L-41 caused a red shift of the UV absorption maximum of PhS- and an increase in its acid dissociation constant, whereas L-9 scarcely affected these values. Under anaerobic conditions, the oxidation of PhSH and HS(CH2)2OH by 10-ethyl-3-methylisoalloxazine in the presence of micelle-like polymers (L-29 and L-41) was 102-105 times faster than the corresponding reaction in a nonpolymeric system, whereas L-9, a **polyelectrolyte**-like polymer, produced almost no acceleration. The thiolate anion bound to the polymer domain is probably activated because of the formation of a hydrophobic ion pair. The oxidation of HS(CH2)4SH was little affected by the polymer micelle. The difference in mechanism of dithiol oxidation is discussed in connection with the microenvironmental effect.
IT **1191-08-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of, by ethylmethylisoalloxazine, polymer micellar-catalyzed)
RN 1191-08-8 HCAPLUS
CN 1,4-Butanedithiol (CA INDEX NAME)

HS— $(CH_2)_4$ — SH

CC 22-5 (Physical Organic Chemistry)
Section cross-reference(s): 35
IT 60-24-2 108-98-5, reactions **1191-08-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of, by ethylmethylisoalloxazine, polymer micellar-catalyzed)

L46 ANSWER 33 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1971:477439 HCAPLUS

DOCUMENT NUMBER: 75:77439
ORIGINAL REFERENCE NO.: 75:12266h,12267a
TITLE: Estimation of the relative stiffness of the molecular chain in **polyelectrolytes** from measurements of viscosity at different ionic strengths
AUTHOR(S): Smidsroed, Olav; Haug, Arne
CORPORATE SOURCE: Norw. Inst. Seaweed Res., Nor. Tek. Hoegsk., Trondheim, Norway
SOURCE: Biopolymers (1971), 10(7), 1213-27
CODEN: BIPMAA; ISSN: 0006-3525
DOCUMENT TYPE: Journal
LANGUAGE: English

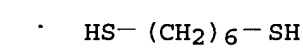
AB A method was developed for comparison of the stiffness of the chain in different **polyelectrolytes** (alginates, dextran sulfate, Na pectinates, Na polyacrylates, amylose xanthate, CM-celluloses, a polyphosphate, carboxymethyl amylose, and Na hyaluronate) from measurements of the intrinsic viscosity at different concns. of added monovalent (Na) salt. The response to salt was quant. expressed as the slope of straight lines relating the intrinsic viscosity to the reciprocal of the square-root of the ionic strength. This slope increased considerably with increasing mol. weight of the **polyelectrolyte**, and characterized the response to salt of different substances only when comparison was made at a constant mol. weight An empirical parameter, B, which is the slope corresponding to an intrinsic viscosity of 1.0 at an ionic strength of 0.1M, could be correlated to the unperturbed dimensions of the mols. A method of extrapolation, enabling the determination of B from measurements of viscosity on only 1 sample of unknown mol. weight, was evaluated. The empirical correlation between B and some well established parameters of stiffness did not contrast with predictions from the "fuzzy-sphere model" of M. Fixman (1964) provided that reasonable assumptions regarding ion binding and the polymer-solvent interaction were made.

IT **4741-30-4D**, Carbonic acid, dithio-, O-ester with amyloses
RL: PRP (Properties)
(viscosity of, mol. chain stiffness in relation to)
RN 4741-30-4 HCAPLUS
CN Carbonodithioic acid (9CI) (CA INDEX NAME)

CC 35 (Synthetic High Polymers)
ST carboxymethyl amylose mol chain stiffness; amylose xanthate mol chain stiffness; hyaluronate mol chain stiffness; **polyelectrolyte** mol chain stiffness; viscosity chain stiffness **polyelectrolyte**; alginate mol chain stiffness; dextran sulfate mol chain stiffness; pectinate mol chain stiffness; polyacrylate mol chain stiffness; CM cellulose mol chain stiffness; polyphosphate mol chain stiffness
IT Chains, chemical
(stiffness of, of **polyelectrolytes**, determination of)
IT **Polyelectrolytes**
(viscosity of, chain stiffness in relation to)
IT **4741-30-4D**, Carbonic acid, dithio-, O-ester with amyloses
9000-11-7 9005-32-7D, Alginic acid, salts 9042-14-2, Dextrans,

sulfate
RL: PRP (Properties)
(viscosity of, mol. chain stiffness in relation to)

L46 ANSWER 34 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1965:74611 HCAPLUS
DOCUMENT NUMBER: 62:74611
ORIGINAL REFERENCE NO.: 62:13250e-g
TITLE: Experiments with a synthetic polyampholyte
AUTHOR(S): Allison, J. P.; Marvel, C. S.
CORPORATE SOURCE: Univ. of Arizona, Tucson
SOURCE: Journal of Polymer Science (1965), 3(1;Pt. A), 137-44
CODEN: JPSCAU; ISSN: 0022-3832
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The synthesis of the regular polyampholyte [SS(CH2)2CH(NH2)(CH2)2CH(CO2)(CH2)2]n (I) (CA 55, 10310i; 52, 5291f) has been improved. The washed and dried I recovered from the amino acid salt was a hard brown material. It was insol. in Me2SO, HCONMe2, AcNMe2, Ac2CH2, Me2NCH2CH2OH, C6H6, PhCl, pyridine, quinoline, HC(OMe)3, (MeOCH2)2, N-methylpyrrolidinone, (Cl2CH)2, iso-PrOH, Me2CO, PhOH, dioxane, tetrahydrofuran, and H2O. It did not dissolve in aqueous alkali or acid except at pH 3.5-10.5. The copolymer of 3,6-bis(3-mercaptopropyl)-2-piperidone and hexane-1,6-dithiol was prepared by oxidation-emulsion polymerization during 14 days at 75° with SeO2 as catalyst. The yield was 48%; %N was 1.94 corresponding to a mole fraction of 0.24 for the piperidone unit; inherent viscosity = 0.69. Viscometric studies of I gave some evidence of contractile properties. Viscosities were measured in H2O, HCO2H, and MeSO3H. The behavior in MeSO3H was reminiscent of that of **polyelectrolytes.** The low mol. weight of I prevented the formation of strong fibers with which to measure contractile properties. Brittle, solution-cast films of I, imbedded in blocks of paraffin wax so that only one surface was exposed, were immersed in concentrated HCl at room temperature for 30 days. The soft, flexible specimens were removed from the wax and immersed in distilled H2O. The hydrolyzed surfaces of the polymers whitened within 1 min. and a concavity formed simultaneously due to the attractive forces between the amine and carboxyl groups produced by this process.
IT **1191-43-1**, 1,6-Hexanedithiol
(reaction with 3,6-bis(3-mercaptopropyl)-2-piperidone, SeO2 as catalyst in, and polyampholyte therefrom)
RN 1191-43-1 HCAPLUS
CN 1,6-Hexanedithiol (CA INDEX NAME)



CC 45 (Synthetic High Polymers)
IT **1191-43-1**, 1,6-Hexanedithiol
(reaction with 3,6-bis(3-mercaptopropyl)-2-piperidone, SeO2 as catalyst in, and polyampholyte therefrom)

=> d l49 ibib abs hitstr hitind 1-10

L49 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:332643 HCAPLUS

DOCUMENT NUMBER: 146:350152
TITLE: Printing liquid solution arrays for inorganic combinatorial libraries
INVENTOR(S): Dong, Yi; Cheng, Shifan; Tao, Dejie; Li, Yi-Qun
PATENT ASSIGNEE(S): Intematix Corporation, USA
SOURCE: U.S. Pat. Appl. Publ., 19pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2007065947 | A1 | 20070322 | US 2005-231309 | 200509 19 |
| WO 2007035636 | A2 | 20070329 | WO 2006-US36285 | 200609 18 |
| WO 2007035636 | A3 | 20070927 | | |

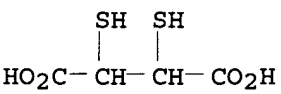
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: US 2005-231309 A 200509 19

AB This invention provides methods and systems to prepare replicate arrays from master arrays of liquid solns. Replicate arrays of liquid solns. can be reacted to form product solid inorg. material arrays for anal. and selection of optimum processes and products with desirable properties.

IT **2418-14-6**, DMSA
RL: CRG (Combinatorial reagent); RGT (Reagent); CMBI (Combinatorial study); RACT (Reactant or reagent)
(DMSA; method of preparing replicate arrays of liquid solns. by printing liquid solution arrays for inorg. combinatorial libraries)

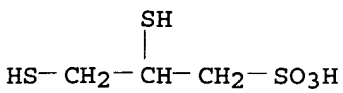
RN 2418-14-6 HCAPLUS
CN Butanedioic acid, 2,3-dimercapto- (CA INDEX NAME)



IT **4076-02-2**, DMPS **25322-68-3**, Polyethylene oxide
RL: CRG (Combinatorial reagent); RGT (Reagent); CMBI (Combinatorial study); RACT (Reactant or reagent)

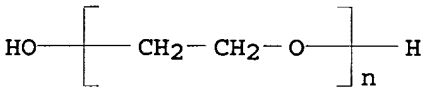
(method of preparing replicate arrays of liquid solns. by printing liquid solution arrays for inorg. combinatorial libraries)

RN 4076-02-2 HCAPLUS
CN 1-Propanesulfonic acid, 2,3-dimercapto-, sodium salt (1:1) (CA INDEX NAME)





RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



INCL 436080000; 436518000; 427002110
CC 79-7 (Inorganic Analytical Chemistry)
Section cross-reference(s): 78
IT **Polyelectrolytes**
(anionic; method of preparing replicate arrays of liquid solns. by printing liquid solution arrays for inorg. combinatorial libraries)
IT **Polyelectrolytes**
(cationic; method of preparing replicate arrays of liquid solns. by printing liquid solution arrays for inorg. combinatorial libraries)
IT **2418-14-6**, DMSA
RL: CRG (Combinatorial reagent); RGT (Reagent); CMBI (Combinatorial study); RACT (Reactant or reagent)
(DMSA; method of preparing replicate arrays of liquid solns. by printing liquid solution arrays for inorg. combinatorial libraries)
IT 60-00-4, reactions 67-42-5 67-68-5, DMSO, reactions 79-06-1, Acrylamide, reactions 139-13-9 150-39-0, Hydroxyethylethylenediamine triacetic acid **4076-02-2**, DMPS 9002-98-6 9002-98-6D, carboxylated derivs. 9003-01-4, Polyacrylic acid 9003-39-8, Polyvinylpyrrolidone 9003-53-6, Polystyrene 9004-53-9, Dextrin 9004-54-0, Dextran, reactions 9005-27-0, Hydroxyethyl starch 9005-49-6, Heparin, reactions 9005-80-5, Inulin 9015-73-0, Diethylaminoethyl-dextran 9042-14-2, Dextran sulfate 24991-23-9 25014-41-9, Polyacrylonitrile **25322-68-3**, Polyethylene oxide 25513-46-6, Polyglutamic acid 26062-48-6, Poly histidine 26854-81-9, Poly histidine 37275-48-2, Bipyridyl
RL: CRG (Combinatorial reagent); RGT (Reagent); CMBI (Combinatorial study); RACT (Reactant or reagent)
(method of preparing replicate arrays of liquid solns. by printing liquid solution arrays for inorg. combinatorial libraries)

L49 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:1021613 HCAPLUS
DOCUMENT NUMBER: 143:332528

TITLE: Composition for stabilizing epigallocatechin gallate (EGCG) in water phase and preparation method thereof
INVENTOR(S): Kim, Chul Hwan; Kim, Kyung Hee; Yoon, Hyun Nam
PATENT ASSIGNEE(S): Dpi Solutions, Inc., S. Korea
SOURCE: PCT Int. Appl., 13 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2005087224 | A1 | 20050922 | WO 2005-KR747 | 200503 15 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| KR 2005092625 | A | 20050922 | KR 2004-17734 | 200403 16 |
| DE 112005000612 | T5 | 20070201 | DE 2005-112005000612 | 200503 15 |
| US 2007184105 | A1 | 20070809 | US 2006-598865 | 200609 13 |

| PRIORITY APPLN. INFO.: | | |
|---|---|---|
| KR 2004-17734 | A | 200403 16 |
| WO 2005-KR747 | W | 200503 15 |

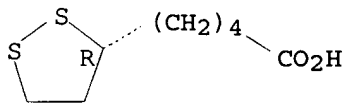
AB Disclosed herein are a composition for stabilizing Epigallocatechin gallate (EGCG) in water phase comprising 0.1-25.0% by weight of Epigallocatechin gallate, 0.1-5.0% by weight of a cationic polymer, an anionic polymer or a mixture thereof, 0.1-10.0% by weight of antioxidant in a remainder of water or the mixture of water and a hydrophilic solvent and a preparation method thereof. The composition is not easily decomposed in water phase as well as in external environment consisting of temperature change, light effect etc. because the composition is stabilized by reacting with a cationic polymer or an anionic polymer.

IT **1200-22-2**, α-Lipoic acid **25322-68-3**, Polyethyleneoxide
RL: MOA (Modifier or additive use); TEM (Technical or engineered

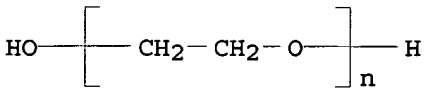
material use); USES (Uses)
(composition for stabilizing epigallocatechin gallate in water phase and preparation method thereof)

RN 1200-22-2 HCAPLUS
CN 1,2-Dithiolane-3-pentanoic acid, (3R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



IC ICM A61K031-353
ICS A61P035-00; A61P039-00
CC 63-6 (Pharmaceuticals)
IT **Polyelectrolytes**
(anionic; composition for stabilizing epigallocatechin gallate in water phase and preparation method thereof)
IT **Polyelectrolytes**
(cationic; composition for stabilizing epigallocatechin gallate in water phase and preparation method thereof)
IT 50-70-4, Sorbitol, uses 50-81-7, Vitamin C, uses 50-81-7D, Vitamin C, derivs. 56-81-5, Glycerin, uses 56-87-1, Lysine, uses 56-89-3, Cystine, uses 57-55-6, Propylene glycol, uses 60-18-4, Tyrosine, uses 73-22-3, Tryptophane, uses 74-79-3, Arginine, uses 100-42-5, Styrene, uses 107-21-1, Ethylene glycol, uses 107-88-0, 1,3-Butanediol 111-46-6, Diethylene glycol, uses **1200-22-2**, α-Lipoic acid 1406-18-4, Vitamin E 1406-18-4D, Vitamin E, derivs. 3403-82-5, Dibutylene glycol 7681-57-4 7757-83-7, Sodium sulfite 9002-98-6, Polyethylenimine 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Car-boxymethylcellulose 9004-34-6, Cellulose, uses 9004-61-9, Hyaluronic acid 9005-25-8, Starch, uses 9005-25-8D, Starch, oxidized 9005-32-7, Alginic acid 9005-38-3, Sodium alginate 9011-14-7, Polymethyl-methacrylate 9012-76-4, Chitosan 11103-57-4, Vitamin A 11103-57-4D, Vitamin A, derivs. 25265-71-8, Dipropylene glycol **25322-68-3**, Polyethyleneoxide 25322-69-4, Polypropyleneglycol
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(composition for stabilizing epigallocatechin gallate in water phase and preparation method thereof)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:982278 HCAPLUS

DOCUMENT NUMBER: 143:254101
TITLE: High flux hemodialysis hollow fiber membrane with improved selectivity
INVENTOR(S): Wechs, Friedbert; Gehlen, Arne; Von Harten, Bodo; Krueger, Richard; Schuster, Oliver
PATENT ASSIGNEE(S): Membrana G.m.b.H., Germany
SOURCE: Ger. Offen., 23 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

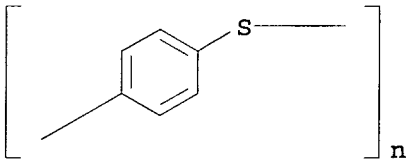
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 102004008220 | A1 | 20050908 | DE 2004-102004008220 | 200402 19 |
| DE 102004008220 | B4 | 20060112 | | |
| WO 2005082502 | A1 | 20050909 | WO 2005-EP1506 | 200502 15 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| EP 1718400 | A1 | 20061108 | EP 2005-707397 | 200502 15 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS | | | | |
| CN 1921929 | A | 20070228 | CN 2005-80005459 | 200502 15 |
| BR 2005007826 | A | 20070717 | BR 2005-7826 | 200502 15 |
| JP 2007522851 | T | 20070816 | JP 2006-553512 | 200502 15 |
| US 2008000828 | A1 | 20080103 | US 2006-588695 | 200608 08 |

PRIORITY APPLN. INFO.: DE 2004-102004008220A 200402 19
WO 2005-EP1506 W 200502 15

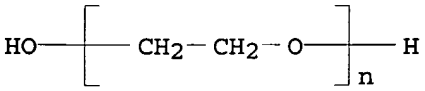
AB The invention concerns hydrophilic semipermeable hollow fiber membranes for blood treatment with an integral asym. structure based on a synthetic polymer. The hollow fiber membrane includes on its inner surface a porous dividing layer and an adjacent open-pore protecting layer; the ultrafiltration rate for albumin is 25-60 mL/h x m2 x Hgmm. The hollow fiber is free of pore-stabilizing additives; its sieving coefficient for cytochrome c is at least 0.8 and for albumin maximum 0.005. The method also concerns a method for the preparation of the hollow fibers by (a) preparation of a spinning solution containing 12-30 weight/weight% synthetic first polymer and optionally additives; (b) extrusion of the spinning solution through an orifice to obtain hollow fibers; (c) extrusion of an inner layer containing a **polyelectrolyte** with neg. charges through the lumen of the hollow fiber orifice in a way that the inner layer contains a coagulation agent for the synthetic first polymer by being a solvent that does not dissolve the first polymer; (d) contacting the inner layer with the inner layer of the hollow fiber in order to form a separating layer in the inner part of the hollow fiber membrane; (e) exposing the hollow fiber to a coagulation bath to complete the membrane structure and to stabilize; (f) extraction of the hollow fiber to remove solvents and soluble components; (g) drying.

IT **25212-74-2**, Poly(phenylene sulfide) **25322-68-3**, Polyethylene glycol
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(high flux hemodialysis hollow fiber membrane with improved selectivity)

RN 25212-74-2 HCAPLUS
CN Poly(thio-1,4-phenylene) (CA INDEX NAME)



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



IC ICM B01D069-08
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 38
ST hemodialysis hollow fiber membrane **polyelectrolyte** selectivity
IT Flow
Hydrophilicity
Permeability
**Polyelectrolytes**
Porosity

(high flux hemodialysis hollow fiber membrane with improved selectivity)

IT 96-48-0, γ-Butyrolactone 105-60-2, ε-Caprolactam, biological studies 127-19-5, Dimethyl acetamide 9002-89-5, Polyvinylalcohol 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Carboxymethyl cellulose 12441-09-7D, Sorbitan, polymeric derivs. 25086-15-1, Rohagit S **25212-74-2**, Poly(phenylene sulfide) **25322-68-3**, Polyethylene glycol 25667-42-9, Polyether sulfone 28062-44-4, Acrylidone ACP 1005
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(high flux hemodialysis hollow fiber membrane with improved selectivity)

L49 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:185371 HCAPLUS
DOCUMENT NUMBER: 142:257290
TITLE: System for sensitive and rapid determination of antimicrobial susceptibility
INVENTOR(S): Goldberg, David A.; Howson, David C.; Metzger, Steven W.; Buttry, Daniel A.; Saavedra, Steven Scott
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 94 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2005048599 | A1 | 20050303 | US 2004-888828 | 20040708 |
| AU 2004273783 | A1 | 20050331 | AU 2004-273783 | 20040708 |
| CA 2532414 | A1 | 20050331 | CA 2004-2532414 | 20040708 |
| WO 2005027714 | A2 | 20050331 | WO 2004-US22025 | 20040708 |
| WO 2005027714 | A3 | 20060921 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| EP 1648286 | A2 | 20060426 | EP 2004-809482 | 200407 |

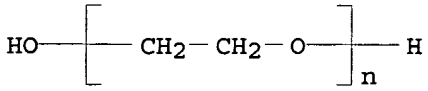
| | | | | | |
|---|---|---|---|---|---|
| | | | | | 08 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR | | | | | |
| JP 2007531863 | T | 20071108 | JP 2006-520235 | | 200407 08 |
| US 2007037225 | A1 | 20070215 | US 2005-303803 | | 200512 16 |
| PRIORITY APPLN. INFO.: | | | US 2003-486605P | P | 200307 12 |
| | | | US 2004-571479P | P | 200405 13 |
| | | | US 2004-888828 | A2 | 200407 08 |
| | | | WO 2004-US22025 | W | 200407 08 |
| | | | US 2004-637423P | P | 200412 16 |
| | | | US 2004-638989P | P | 200412 22 |

AB The present invention relates to moving microorganisms to a surface, where they are grown in the presence and absence of antimicrobials, and by monitoring the growth of the microorganisms over time in the two conditions, their susceptibility to the antimicrobials can be determined The microorganisms can be moved to the surface through electrophoresis, centrifugation or filtration. When the movement involves electrophoresis, the presence of oxidizing and reducing reagents lowers the voltage at which electrophoretic force can be generated and allows a broader range of means by which the target can be detected. Monitoring can comprise optical detection, and most conveniently includes the detection of individual microorganisms. The microorganisms can be stained in order to give information about their response to antimicrobials.

IT **25322-68-3**, Polyethylene glycol
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(affinity component addnl. comprising; system for sensitive and rapid determination of antimicrobial susceptibility)

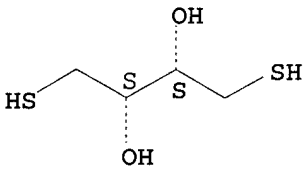
RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



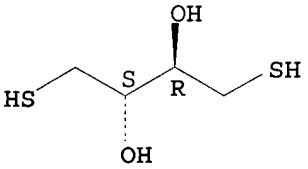
IT **3483-12-3**, Dithiothreitol **6892-68-8**,
Dithioerythritol
RL: ARU (Analytical role, unclassified); DEV (Device component use);
ANST (Analytical study); USES (Uses)
(as reducing agent; system for sensitive and rapid determination of antimicrobial susceptibility)
RN 3483-12-3 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 6892-68-8 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3S)-rel- (CA INDEX NAME)

Relative stereochemistry.



IC ICM C12Q001-04
ICS C12M001-34
INCL 435034000; 435287100
CC 9-1 (Biochemical Methods)
Section cross-reference(s): 1, 10
IT Aptamers
**Polyelectrolytes**
(as affinity component for microorganism; system for sensitive and rapid determination of antimicrobial susceptibility)
IT **Polyelectrolytes**.
(cationic, as affinity component for microorganism; system for sensitive and rapid determination of antimicrobial susceptibility)
IT 9003-05-8, Polyacrylamide **25322-68-3**, Polyethylene glycol
RL: ARU (Analytical role, unclassified); DEV (Device component use);
ANST (Analytical study); USES (Uses)
(affinity component addnl. comprising; system for sensitive and rapid determination of antimicrobial susceptibility)
IT 50-81-7D, L-Ascorbic acid, compds. 70-18-8, Glutathione, analysis
102-54-5D, Ferrocene, compds. 1910-42-5, Methyl viologen
**3483-12-3**, Dithiothreitol **6892-68-8**,
Dithioerythritol 13408-63-4D, Ferrocyanide, compds.
RL: ARU (Analytical role, unclassified); DEV (Device component use);

ANST (Analytical study); USES (Uses)
(as reducing agent; system for sensitive and rapid determination of antimicrobial susceptibility)

L49 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:6160 HCAPLUS
DOCUMENT NUMBER: 138:88635
TITLE: Chimeric immunomodulatory compounds comprising nucleic acids linked through dendrimer or polysaccharide spacer and antigen for treating allergy, infection or cancer
INVENTOR(S): Fearon, Karen L.; Dina, Dino; Tuck, Stephen F.
PATENT ASSIGNEE(S): Dynavax Technologies Corporation, USA
SOURCE: PCT Int. Appl., 224 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2003000922 | A2 | 20030103 | WO 2002-US20025 | 200206 21 |
| WO 2003000922 | A3 | 20031023 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2451974 | A1 | 20030103 | CA 2002-2451974 | 200206 21 |
| AU 2002345847 | A1 | 20030108 | AU 2002-345847 | 200206 21 |
| EP 1404873 | A2 | 20040407 | EP 2002-744589 | 200206 21 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| CN 1533442 | A | 20040929 | CN 2002-814608 | 200206 21 |
| JP 2004537535 | T | 20041216 | JP 2003-507303 | 200206 21 |
| PRIORITY APPLN. INFO.: | | | US 2001-299883P P | 200106 21 |
| | | | US 2002-375253P P | 200204 |

WO 2002-US20025 W
200206
21

AB The invention provides immunomodulatory compds. (CIC) and methods for immunomodulation of individuals using the immunomodulatory compds. The CIC comprises one or more nucleic acid moieties and one or more non-nucleic acid moieties such as dendrimer, polysaccharide, and crosslinked polysaccharide through phosphodiester, phosphorothioate ester, phosphorodithioate ester, and other linkages. The CIC is capable of stimulating production of interferon γ and α by human peripheral blood mononuclear cells, as well as human B cell proliferation. Endotoxin-free compns. comprising the CIC covalently or non-covalently conjugated with antigen and cationic microsphere are useful for treating disorders associated with IgE or Th2-type immune response such as allergy, asthma, infection, viral infection, idiopathic pulmonary fibrosis, and cancer.

IT **482661-50-7P**
RL: PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(chimeric immunomodulatory compds. comprising nucleic acids linked through dendrimer or polysaccharide spacer and antigen for treating allergy, infection or cancer)

RN 482661-50-7 HCAPLUS

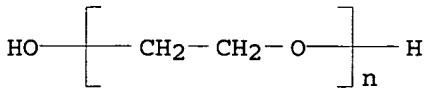
CN DNA, d(T-sp-C-sp-G-sp-T-sp-C-sp-G-sp-A[oxy(mercaptophosphinylidene)oxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy(mercaptophosphinylidene)oxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy(mercaptophosphinylidene)oxy[2-[3,23-dimercapto-3,23-dioxido-41-[(P-thiothymidylyl-(3'→5')-2'-deoxy-P-thiocytidylyl-(3'→5')-2'-deoxy-P-thioguanylyl-(3'→5')-P-thiothymidylyl-(3'→5')-2'-deoxy-P-thiocytidylyl-(3'→5')-2'-deoxy-P-thioguanylyl-(3'→5')-2'-deoxy-P-thio-3'-adenylyl)oxy]-2,4,7,10,13,16,19,22,27,30,33,36,39-tridecaoxa-3,23-diphosphahentetracont-1-yl]oxy]-1,2-ethanediyl]oxy(mercaptophosphinylidene)oxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy(mercaptophosphinylidene)oxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy(mercaptophosphinylidene)oxy]T-sp-C-sp-G-sp-T-sp-C-sp-G-sp-A) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **25322-68-3**, Polyethylene glycol
RL: BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(spacer; chimeric immunomodulatory compds. comprising nucleic acids linked through dendrimer or polysaccharide spacer and antigen for treating allergy, infection or cancer)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



IC ICM C12Q
CC 15-2 (Immunochemistry)
Section cross-reference(s): 3, 63
IT Microspheres
**Polyelectrolytes**
(cationic; chimeric immunomodulatory compds. comprising nucleic acids linked through dendrimer or polysaccharide spacer and antigen for treating allergy, infection or cancer)
IT 245759-23-3DP, dendrimers 387819-74-1DP, dendrimers 482381-06-6P 482381-07-7P 482381-08-8P 482381-09-9P 482381-10-2P 482381-11-3P 482381-12-4P 482381-13-5P 482624-39-5DP, dendrimers 482624-51-1DP, dendrimers 482624-53-3P 482624-56-6P 482624-58-8P 482624-60-2P 482624-62-4P 482624-64-6P 482624-66-8DP, conjugates with Ficoll 482624-66-8P 482661-31-4P 482661-32-5P 482661-33-6P 482661-34-7P 482661-35-8P 482661-36-9P 482661-37-0P 482661-38-1P 482661-39-2P 482661-40-5P 482661-41-6P 482661-42-7P 482661-43-8P 482661-44-9P 482661-45-0P 482661-46-1P 482661-47-2P 482661-48-3P 482661-49-4P **482661-50-7P** 482661-51-8P 482661-52-9P 482661-53-0P 482661-54-1P 482661-55-2P 482661-56-3P 482663-36-5P 482663-37-6P 482663-38-7P 482663-39-8P 482663-40-1P 482663-41-2P 482663-42-3P 482663-43-4P 482663-44-5P 482663-45-6P 482663-46-7P 482663-47-8P 482663-48-9P 482663-49-0P 482663-50-3P 482663-51-4P 482663-52-5P 482663-53-6P 482663-54-7P 482663-55-8P 482663-56-9P 482663-57-0P 482663-58-1P 482663-59-2P 482663-60-5P 482663-61-6P 482663-62-7P 482663-63-8P 482663-64-9P 482663-65-0P 482663-66-1P 482663-67-2P 482663-68-3P 482663-69-4P 482663-70-7P 482663-71-8P 482663-72-9P 482663-73-0P 482663-74-1P 482663-75-2P 482663-76-3P 482663-77-4P 482663-78-5P 482663-79-6P 482663-80-9P 482663-81-0P 482663-82-1P 482663-83-2P 482663-84-3P 482663-85-4P 482663-86-5P 482663-87-6P 482663-88-7P 482663-89-8P 482663-90-1P 482663-91-2P 482663-92-3P 482663-93-4P 482663-94-5P 482663-95-6P 482663-96-7P 482663-97-8P 483382-43-0P 483382-44-1P 483382-45-2P 483382-46-3P 483382-47-4P 483382-48-5P 483382-49-6P 483382-50-9P 483382-51-0P 483382-52-1P 483382-53-2P 483382-54-3P 483382-55-4P 483382-56-5P 483382-57-6P 483382-58-7P 483382-59-8P 483382-60-1P 483382-61-2P 483382-64-5P 483382-65-6P 483382-66-7P 483382-67-8P 483382-68-9P 483969-90-0DP, dendrimers 483971-28-4DP, dendrimers 483973-10-0DP, dendrimers
RL: PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(chimeric immunomodulatory compds. comprising nucleic acids linked through dendrimer or polysaccharide spacer and antigen for treating allergy, infection or cancer)
IT 56-81-5, Glycerol, biological studies 115-77-5, Pentaerythritol, biological studies 616-29-5, 1,3-Diamino-2-propanol **25322-68-3**, Polyethylene glycol 101221-89-0, 1,2-Dideoxy-D-ribose

RL: BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent) (spacer; chimeric immunomodulatory compds. comprising nucleic acids linked through dendrimer or polysaccharide spacer and antigen for treating allergy, infection or cancer)

L49 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:39555 HCAPLUS
DOCUMENT NUMBER: 136:107223
TITLE: Cleansing articles for skin and/or hair
INVENTOR(S): Albacarys, Lourdes Dessus; Mcatee, David Michael; Deckner, George Endel
PATENT ASSIGNEE(S): The Procter & Gamble Company, USA
SOURCE: U.S., 32 pp., Cont.-in-part of U.S. Ser. No. 65,991, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | | DATE |
|---|---|---|---|---|---|
| US 6338855 | B1 | 20020115 | US 1999-296334 | | 19990422 |
| PRIORITY APPLN. INFO.: | | | US 1996-738145 | B2 | 19961025 |
| | | | US 1996-738668 | B1 | 19961025 |
| | | | US 1997-974033 | B2 | 19971119 |
| | | | US 1998-65991 | B2 | 19980424 |
| | | | US 1998-83015P | P | 19980424 |

AB The present invention relates to a substantially dry, disposable, personal cleansing article useful for both cleansing the skin or hair and delivering skin care actives onto the skin or hair. These articles are used by the consumer by wetting the dry article with water and generating lather by subjecting the wetted article to mech. forces, e.g., rubbing. The article comprises a water insol. substrate, a lathering surfactant, and a skin care active component. Preferably, the articles of the present invention further comprise a deposition aid and/or a conditioning component. The following ingredients containing PEG 0.5 and water qs to 100%. To the above mixture was added disodium EDTA 0.10, sodium lauroyl sarcosinate 3.33, cocamidopropyl betaine 3.33, decyl polyglucoside 3.33, methylparaben 0.25, phenoxyethanol 0.3, and benzyl alc. 0.3%. The following

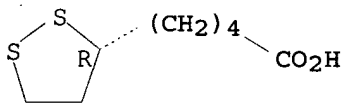
components water 2.0, butylene glycol 2.0, and propylparaben 0.15% were added to the above surfactant mixture A skin-care active composition containing sucrose esters with cotton fatty acids 48.00, sucrose ester with behenic acid 12.00, petrolatum 10.00, tribehenin 5.00, and C10-30 cholesterol/lanosterol esters 18.00% and was added to the surfactant mixture

IT **1200-22-2**, Lipoic acid **25322-68-3D**, Polyethylene glycol, derivs.
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(cleansing articles for skin and/or hair)

RN 1200-22-2 HCAPLUS

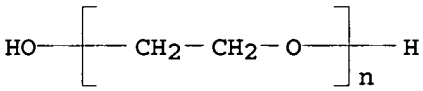
CN 1,2-Dithiolane-3-pentanoic acid, (3R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



IC ICM A01N025-34
ICS A01N025-08

INCL 424409000

CC 62-4 (Essential Oils and Cosmetics)

IT **Polyelectrolytes**
Surfactants
(cationic; cleansing articles for skin and/or hair)

IT 50-21-5, Lactic acid, biological studies 50-23-7, Hydrocortisone 56-81-5D, Glycerin, derivs. 56-86-0, L-Glutamic acid, biological studies 57-13-6, Urea, biological studies 57-50-1D, Sucrose, esters 57-55-6, Propylene glycol, biological studies 57-88-5, Cholesterol, biological studies 57-88-5D, Cholesterol, C10-30 esters 58-95-7, Tocopheryl acetate 59-67-6, Nicotinic acid, biological studies 68-26-8, Retinol 69-72-7, Salicylic acid, biological studies 79-14-1, Glycolic acid, biological studies 79-63-0D, Lanosterol, C10-30 esters 79-81-2, Retinyl palmitate 81-13-0, Panthenol 83-86-3, Phytic acid 94-36-0, Benzoyl peroxide, biological studies 96-26-4, Dihydroxyacetone 97-59-6, Allantoin 98-92-0, Niacinamide 100-51-6, Benzyl alcohol, biological studies 101-20-2, 3,4,4'-Trichlorocarbanilide 107-35-7D, Taurine, derivs. 107-36-8 107-41-5, Hexylene glycol 107-97-1, Sarcosinic acid 108-46-3, Resorcinol, biological studies 122-99-6, Phenoxyethanol 123-99-9, Azelaic acid, biological studies 131-57-7, Oxybenzone 137-16-6, Sodium Lauroyl Sarcosinate 302-79-4, trans-Retinoic acid 497-76-7, Arbutin 501-30-4, Kojic acid 616-91-1, N-Acetyl L-cysteine 770-35-4, Phenoxyisopropanol **1200-22-2**, Lipoic acid 1464-44-4 2382-43-6 3380-34-5 5466-77-3, 2-Ethylhexyl p-methoxycinnamate 6180-61-6, 3-Phenoxypropanol 9000-30-0, Guar Gum 9002-88-4D,

Polyethylene, derivs. 9002-89-5D, Polyvinyl alcohol, derivs. 9003-07-0D, Polypropylene, derivs. 9003-20-7, Polyvinyl acetate 9004-34-6D, Cellulose, derivs. 9004-62-0, Hydroxyethyl cellulose 15687-27-1, Ibuprofen 18641-57-1, Tribehenin 22204-53-1, Naproxen 25231-21-4, Polypropylene glycol stearyl ether **25322-68-3D**, Polyethylene glycol, derivs. 25322-69-4D, Polypropylene glycol, derivs. 26855-43-6, Triglyceryl Monostearate 27503-81-7, 2-Phenylbenzimidazole-5-sulfonic acid 29656-68-6, Ethyl hexanediol 56449-50-4, Sucrose Behenate 81859-24-7, Polyquaternium-10 97950-17-9, cis-Retinoic acid 99550-56-8, Polyglyceryl Tristearate 100895-09-8, Decaglyceryl Dipalmitate 115515-88-3, Decaglyceryl Stearate 142769-93-5 156028-14-7, Sodium Lauroamphoacetate

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(cleansing articles for skin and/or hair)

REFERENCE COUNT: 95 THERE ARE 95 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:708579 HCAPLUS
DOCUMENT NUMBER: 131:327309
TITLE: Lathering surfactants in cleansing compositions for skin and/or hair which also deposits skin care actives
INVENTOR(S): Albacarys, Lourdes Dessus; McAtee, David Michael; Deckner, George Endel
PATENT ASSIGNEE(S): Procter + Gamble Co., USA
SOURCE: PCT Int. Appl., 94 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9955303 | A1 | 19991104 | WO 1999-IB635 | 19990412 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2332948 | A1 | 19991104 | CA 1999-2332948 | 19990412 |
| AU 9929524 | A | 19991116 | AU 1999-29524 | 19990412 |
| AU 756691 | B2 | 20030123 | | |
| BR 9909629 | A | 20001219 | BR 1999-9629 | 19990412 |
| EP 1071396 | A1 | 20010131 | EP 1999-910615 | |

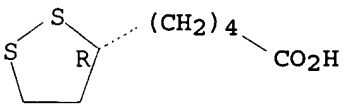
19990412
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI
JP 2002512944 T 20020508 JP 2000-545503
19990412
MX 2000PA10386 A 20010731 MX 2000-PA10386
20001023
PRIORITY APPLN. INFO.: US 1998-83015P P
19980424
WO 1999-IB635 W
19990412

AB The present invention relates to a substantially dry, disposable, personal cleansing article useful for both cleansing the skin or hair and delivering skin care actives onto the skin or hair. These articles are used by the consumer by (i) wetting the dry article with water and (ii) generating lather by subjecting the wetted article to mech. forces, e.g., rubbing. The article comprises a water insol. substrate, a lathering surfactant, and a skin care active component. Preferably, the articles of the present invention further comprise a deposition aid and/or a conditioning component. E.g., a surfactant phase was prepared by dissolving hydroxyethyl cellulose 0.25% and guar gum 0.25% in water (to 100% by weight) and then adding the following ingredients: Na lauroyl sarcosinate 3.33, cocamidopropyl betaine 3.33, decyl polyglucoside 3.33, Me paraben 0.25, phenoxyethanol 0.3, and benzyl alc. 0.3%, resp.. At the end, a 1.5-2.5 g of the mixture containing water 2.0 g, butylene glycol 2.0 g, and Pr paraben 0.15 g was added to the first mixture and dried. A skin care active phase was prepared containing SEFA cottonate 43.0, petrolatum 10.00, tribehenin 5.0, polyethylene wax 9.0, synthetic beeswax 3.0, C10-30 cholesterol/lanosterol esters 23.0, vitamin A acetate 2.0, and TiO2 5.0 parts. A 0.05-0.75 g of this phase was mixed with the surfactant phase to obtain a skin or hair cleansing composition

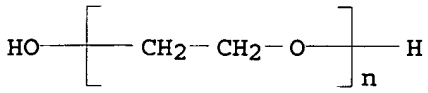
IT **1200-22-2**, Lipoic acid **25322-68-3**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(cleansing compns. containing surfactants and polymers for skin and/or hair which also deposits skin care actives)

RN 1200-22-2 HCAPLUS
CN 1,2-Dithiolane-3-pentanoic acid, (3R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).




RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



IC A61K007-50
CC 62-1 (Essential Oils and Cosmetics)
IT **Polyelectrolytes**
(cationic; cleansing compns. containing surfactants and polymers for skin and/or hair which also deposits skin care actives)
IT 50-21-5, biological studies 50-23-7, Hydrocortisone 56-81-5, 1,2,3-Propanetriol, biological studies 56-86-0D, L-Glutamic acid, esters, biological studies 57-13-6, Urea, biological studies 57-50-1D, Sucrose, esters 57-55-6, 1,2-Propanediol, biological studies 57-88-5, Cholesterol, biological studies 58-95-7, Tocopheryl acetate 59-67-6, Nicotinic acid, biological studies 64-19-7D, Acetic acid, esters, biological studies 68-26-8, Retinol 69-72-7, biological studies 79-10-7D, Acrylic acid, esters 79-14-1, biological studies 79-81-2, Retinyl palmitate 81-13-0, Panthenol 83-86-3, Phytic acid 94-13-3, Propyl paraben 96-26-4, Dihydroxyacetone 97-59-6, Allantoin 98-92-0, Niacinamide 99-76-3, Methyl paraben 100-51-6, Benzyl alcohol, biological studies 101-20-2, 3,4,4'-Trichlorocarbanilide 107-35-7D, Taurine, salts 107-36-8D, Isethionic acid, organic esters 107-41-5, Hexylene glycol 107-97-1D, Sarcosine, esters 108-46-3, Resorcinol, biological studies 112-85-6D, Behenic acid, esters 122-99-6, Phenoxyethanol 123-99-9, Nonanedioic acid, biological studies 127-47-9, Vitamin A acetate 131-57-7, Oxybenzone 137-16-6, Sodium lauroyl sarcosinate 302-79-4, trans-Retinoic acid 497-76-7, Arbutin 501-30-4, Kojic acid 555-43-1, Glyceryl tristearate 616-91-1, N-Acetyl-L-cysteine 617-57-2D, 2-Lactylic acid, esters 770-35-4, Phenoxyisopropanol **1200-22-2**, Lipoic acid 2382-43-6 3380-34-5 4472-12-2D, Iminoacetic acid, alkyl esters 5300-03-8, 9-cis-Retinoic acid 5466-77-3, 2-Ethylhexyl p-methoxycinnamate 7664-38-2D, Phosphoric acid, organic esters, biological studies 7664-93-9D, Sulfuric acid, organic esters, biological studies 9000-30-0, Guar gum 9002-88-4, Polyethylene 9002-89-5, Polyvinyl alcohol 9003-07-0, Polypropylene 9003-20-7, Polyvinyl acetate 9004-34-6D, Cellulose, esters and ethers, biological studies 9004-62-0, Hydroxyethyl cellulose 13463-67-7, Titanium dioxide, biological studies 13822-09-8, Benzyl peroxide 15687-27-1, Ibuprofen 18641-57-1, Tribehenin 19223-69-9D, N-cocoacyl derivs. 22204-53-1, Naproxen 25231-21-4 25265-75-2, Butylene glycol **25322-68-3** 25322-69-4 26855-43-6, Triglyceryl monostearate 27503-81-7, 2-Phenylbenzimidazole-5-sulfonic acid 29656-68-6, Ethyl hexanediol 41593-38-8, Phenoxypropanol 53240-01-0 81859-24-7, Polyquaternium 10 100895-09-8, Decaglyceryl dipalmitate 115515-88-3, Decaglyceryl stearate 156028-14-7, Sodium lauroamphoacetate
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(cleansing compns. containing surfactants and polymers for skin and/or hair which also deposits skin care actives)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:375525 HCAPLUS

DOCUMENT NUMBER: 131:59262
TITLE: Perfluorocarbyl sulfoxide or sulfone salts and their use as ionic conductors
INVENTOR(S): Michot, Christophe; Armand, Michel; Choquette, Yves; Gauthier, Michel
PATENT ASSIGNEE(S): Acep Inc., Can.; Universite de Montreal; Centre National de la Recherche Scientifique
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9928292 | A1 | 19990610 | WO 1998-FR2585 | 199812 01 |
| W: CA, JP, US<br>RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| CA 2224046 | A1 | 19990601 | CA 1997-2224046 | 199712 01 |
| CA 2228801 | A1 | 19990803 | CA 1998-2228801 | 199802 03 |
| CA 2279399 | A1 | 19990610 | CA 1998-2279399 | 199812 01 |
| EP 968181 | A1 | 20000105 | EP 1998-958294 | 199812 01 |
| EP 968181 | B1 | 20050427 | | |
| R: DE, FR, GB, IT | | | | |
| JP 2002500678 | T | 20020108 | JP 1999-530206 | 199812 01 |
| EP 1626041 | A2 | 20060215 | EP 2005-23466 | 199902 03 |
| R: DE, FR, GB, IT | | | | |
| US 6620546 | B1 | 20030916 | US 1999-355454 | 199909 24 |
| US 2002009635 | A1 | 20020124 | US 2001-859784 | 200105 16 |

| | | | |
|---|---|---|---|
| PRIORITY APPLN. INFO.: | CA 1997-2224046 | A | 199712 01 |
| | CA 1998-2228801 | A | 199802 03 |
| | WO 1998-FR2585 | W | 199812 |

| | | |
|---|---|---|
| | | 01 |
| CA 1998-2256945 | A | 199812 18 |
| EP 1999-903554 | A3 | 199902 03 |
| US 1999-355454 | A1 | 199909 24 |

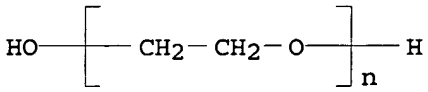
OTHER SOURCE(S): MARPAT 131:59262

AB An ionic composition comprises a salt dissolved in a solvent and has a conductivity >10-5 S/cm between -30 and +150°. The cation is a proton, hydronium, hydroxonium, nitrosonium (NO+), NH4+, or an organic or organometallic metal cation. The anion is a carbanion bearing a perfluorinated substituent or a substituent at least bearing a F on the α carbon of the carbanion, and two nonperfluorinated electron-withdrawing substituents. The composition can be used as an electrolyte in electrochem. devices, as a catalyst for chemical reactions, and as a photochem. or thermochem. initiator for polymerization or crosslinking reactions. Thus, CH2(SO2Cl)2 was amidated with Me2NH, treated with NaH, condensed with (trifluoromethylsulfonyl)imidazole, and neutralized with K2CO3 to give (Me2NSO2)2C-(SO2CF3) K+, which was exchanged with LiCl to give (Me2NSO2)2C-(SO2CF3) Li+ (I), soluble in polar organic solvents and in poly(ethylene oxide) (II). A solution of I in II at O/Li = 12 shows ionic conductivity >10-4 S/cm at 60°; an acetone solution of I is a catalyst for the Diels-Alder reaction; and a combination of I with an ethylene oxide-allyl glycidyl ether-Me glycidyl ether copolymer at O/Li = 20 serves as an electrolyte in a Li battery. The analog Me2NSO2C-(SO2CF3)SO2C6H4CH:CH2-p Li+ was prepared and copolymd. 6:4 with acrylonitrile, and the resulting polymer 30, ethylene carbonate 35, and propylene carbonate 35% were combined to give a **polyelectrolyte** gel with ionic conductivity >10-4 S/cm at 30°.

IT **25322-68-3**
RL: TEM (Technical or engineered material use); USES (Uses)
(matrix; perfluorocarbyl sulfone salts as ionic conductors in)

RN 25322-68-3 HCAPLUS

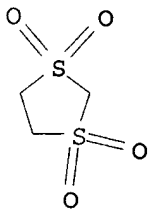
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



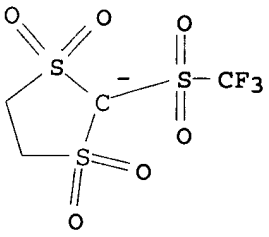
IT **26413-19-4**, 1,3-Dithiolane 1,1,3,3-tetraoxide
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of perfluorocarbyl sulfone salts as ionic conductors)

RN 26413-19-4 HCAPLUS

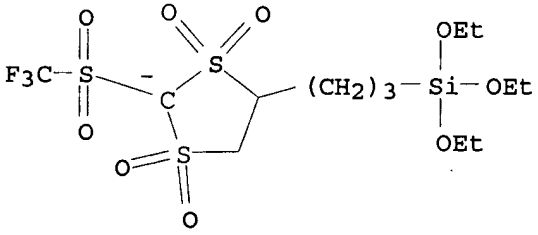
CN 1,3-Dithiolane, 1,1,3,3-tetraoxide (CA INDEX NAME)

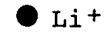


IT **227938-57-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of perfluorocarbyl sulfone salts as ionic conductors)
RN 227938-57-0 HCAPLUS
CN 1,3-Dithiolane, 2-[(trifluoromethyl)sulfonyl]-, 1,1,3,3-tetraoxide, ion(1-), potassium (9CI) (CA INDEX NAME)



IT **227938-59-2P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of perfluorocarbyl sulfone salts as ionic conductors)
RN 227938-59-2 HCAPLUS
CN Silane, triethoxy[3-[1,1,3,3-tetraoxido-2-[(trifluoromethyl)sulfonyl]-1,3-dithiolan-4-yl]propyl]-, ion(1-), lithium (9CI) (CA INDEX NAME)





IC ICM C07C317-04
ICS C07D339-06; C07D311-82; C07C317-12; C08G061-02; C08F232-04; H01M010-40; H01M006-16
CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 23, 24, 25, 28, 52, 67
IT **25322-68-3** 136474-71-0, Allyl glycidyl ether-ethylene oxide-glycidyl methyl ether copolymer 227938-61-6
RL: TEM (Technical or engineered material use); USES (Uses)
(matrix; perfluorocarbyl sulfone salts as ionic conductors in)
IT 111-92-2, Dibutylamine 124-40-3, reactions 335-05-7, Trifluoromethanesulfonyl fluoride 589-15-1, p-Bromobenzyl bromide 2633-67-2, p-Styrenesulfonyl chloride 5089-70-3, (3-Chloropropyl)triethoxysilane 5799-68-8, Methanedisulfonyl dichloride **26413-19-4**, 1,3-Dithiolane 1,1,3,3-tetraoxide 29540-81-6 31876-38-7D, Moniliformin, alkali metal salts 41804-89-1, Potassium triflinate 51270-39-4, 1-Bromo-N,N-dimethylmethanesulfonamide 65039-09-0, 1-Ethyl-3-methyl-1H-imidazolium chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of perfluorocarbyl sulfone salts as ionic conductors)
IT 173852-59-0P 227938-52-5P 227938-53-6P **227938-57-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of perfluorocarbyl sulfone salts as ionic conductors)
IT 227938-49-0DP, potassium ion-exchanged 227938-51-4DP, potassium ion-exchanged 227938-55-8P **227938-59-2P** 227938-63-8P 227938-69-4P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of perfluorocarbyl sulfone salts as ionic conductors)
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:224098 HCAPLUS
DOCUMENT NUMBER: 126:209293
TITLE: A colorimetric method of detecting thiol or mercaptan compounds and its use for oral malodor determination
INVENTOR(S): Kerschensteiner, Daniel A.
PATENT ASSIGNEE(S): The Oralife Group, Inc., Can.; Kerschensteiner, Daniel, A.
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9705482 | A1 | 19970213 | WO 1996-US12488 | 19960730 |

W: CA, GB, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
PRIORITY APPLN. INFO.: US 1995-1711P P

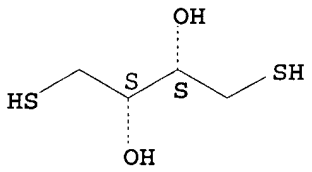
199507
31

AB The invention relates to a method for detecting the presence of thiol, mercaptans, sulfhydryl or volatile sulfur compds. in a sample and to reagents and reaction mixts. which can be used in detecting such compds. More particularly, it relates to colloidal metal sol suspensions which have a flocculated state visually distinguishable from a monodisperse suspended state and can be used in detecting thiol compds. The tensioned or sensitized state of colloidal metal sol suspensions are prepared and subsequently exposed to a sample which may contain thiol compds. The presence of such compds. can be determined by the color change of the soluble The reagents and reaction mixts. are used in the diagnosis of halitosis, as halitosis is related to the presence of thiol and volatile sulfur compds. in the breath sample of an individual. The invention also relates to halitosis diagnostic kits comprising a reagent or reaction mixture of the invention and a blow tube.

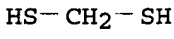
IT **3483-12-3**, Dithiothreitol **6725-64-0**, Methane dithiol
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(colorimetric detection of thiol or mercaptan compds. in breath in halitosis diagnosis)

RN 3483-12-3 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.

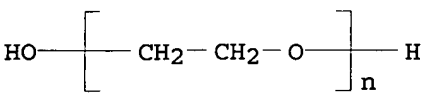



RN 6725-64-0 HCAPLUS
CN Methanedithiol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)




IT **25322-68-3**, Polyethylene glycol
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(colorimetric detection of thiol or mercaptan compds. in breath in halitosis diagnosis)

RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)




IC ICM G01N033-00
CC 9-5 (Biochemical Methods)

Section cross-reference(s): 14, 80

IT Detergents
**Polyelectrolytes**
Respiratory air
(colorimetric detection of thiol or mercaptan compds. in breath in halitosis diagnosis)

IT 52-90-4, Cysteine, analysis 60-23-1, 2-Mercaptoethylamine 60-24-2, 2-Mercaptoethanol 68-11-1, Mercaptoacetic acid, analysis 70-18-8, GSH, analysis 74-93-1, Methyl mercaptan, analysis 79-42-5, Thiolactic acid 96-27-5, 3-Mercapto-1,2-propanediol 107-96-0, 3-Mercaptopropionic acid 147-93-3, Thiosalicylic acid 872-35-5, 2-Mercaptoimidazole 3375-50-6, 2-Mercaptoethanesulfonic acid **3483-12-3**, Dithiothreitol 6325-91-3, 2-Mercapto-5-nitrobenzimidazole **6725-64-0**, Methane dithiol 7704-34-9D, Sulfur, compds., analysis 7783-06-4, Hydrogen sulfide, analysis
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(colorimetric detection of thiol or mercaptan compds. in breath in halitosis diagnosis)

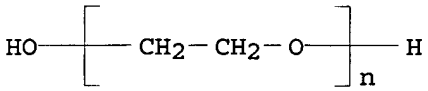
IT 77-92-9, Citric acid, analysis 77-92-9D, Citric acid, salts 7647-01-0, Hydrochloric acid, analysis 7647-14-5, Sodium chloride, analysis 9000-01-5, Gum arabic 9002-89-5, Polyvinyl alcohol 9004-54-0, Dextran, analysis 9005-32-7, Alginic acid 9005-64-5, Tween 20 10043-52-4, Calcium chloride, analysis **25322-68-3**, Polyethylene glycol
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(colorimetric detection of thiol or mercaptan compds. in breath in halitosis diagnosis)

L49 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1986:534683 HCAPLUS
DOCUMENT NUMBER: 105:134683
ORIGINAL REFERENCE NO.: 105:21747a,21750a
TITLE: Ion transport numbers for new polymer electrolytes
AUTHOR(S): Shriver, D. F.; Clancy, S.; Blonsky, P. M.; Hardy, L. C.
CORPORATE SOURCE: Dep. Chem., Northwestern Univ., Evanston, IL, 60201, USA
SOURCE: Transp.-Struct. Relat. Fast Ion Mixed Conduct., Proc. Risoe Int. Symp. Metall. Mater. Sci., 6th (1985), 353-7. Editor(s): Poulsen, Finn Willy. Risoe Natl. Lab.: Roskilde, Den.
CODEN: 55EFAX
DOCUMENT TYPE: Conference
LANGUAGE: English

AB A potentiostatic polarization cell technique was employed to determine ion transport nos. (t) for a wide variety of polymer-salt complexes including some new polymer electrolytes based on polyphosphazenes. A wide variation in t was observed and in one instance the heat of individual ion transport was determined The similarity of the heat of transport for the anion and cation indicated that for poly(ethylene succinate)-lithium boron tetrafluoride complex, either polymer segmental motion or ion correlation was the dominant contributor to both cation and anion motion. The good room-temperature polyphosphazene based electrolyte had t = 0.3 at 60°.

IT **25322-68-3D**, complexes with alkali metal salts
**37325-04-5D**, complexes with silver nitrate and silver trifluoromethane sulfonate

RL: PRP (Properties)
(ion transport number of, determination of, by potentiostatic polarization)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)

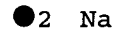


RN 37325-04-5 HCAPLUS
CN 1,5-Pentanedithiol, disodium salt, polymer with 1,5-dibromopentane (9CI) (CA INDEX NAME)

CM 1

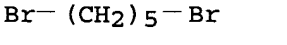
CRN 50973-58-5
CMF C5 H12 S2 . 2 Na





CM 2

CRN 111-24-0
CMF C5 H10 Br2



CC 36-5 (Physical Properties of Synthetic High Polymers)
Section cross-reference(s): 72
IT **Polyelectrolytes**
(ion transport number of, determination of, by potentiostatic polarization)
IT 540-72-7D, poly(ethylen oxide) and phosphazene polymer complexes 556-65-0D, poly(ethylene oxide) complexes 2923-28-6D, poly(pentamethylene sulfide) and phosphazene polymer complexes 2926-30-9D, poly(ethylene succinate) and phosphazene polymer complexes 7761-88-8D, poly(pentamethylene sulfide) complexes 13755-29-8D, poly(ethylene succinate) complexes 14283-07-9D, poly(ethylene oxide) complexes **25322-68-3D**, complexes with alkali metal salts 25569-53-3 25667-11-2D, complexes with alkali metals 33454-82-9D, poly(ethylen oxide) and phosphazene polymer complexes **37325-04-5D**, complexes with silver nitrate and silver trifluoromethane sulfonate 50851-57-5D, poly(ethylene oxide) complexes
RL: PRP (Properties)
(ion transport number of, determination of, by potentiostatic polarization)

=>

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=> fil hcap
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=> d his l52-

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L54           4 S L53 NOT L49
L55           0 S L54 AND L50

     FILE 'HCAPLUS' ENTERED AT 12:22:28 ON 28 JAN 2008

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L54  ANSWER 1 OF 4  HCAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2004:1036407  HCAPLUS
DOCUMENT NUMBER:          142:27902
TITLE:                    Hair care and nail care compositions based on
                          ion-pair delivery system for gender and ethnic
                          selective applications
INVENTOR(S):              Gupta, Shyam K.
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 8 pp.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     --------------       ----   --------    --------------------
     --------
     US 2004241114         A1    20041202    US 2003-250045
                                                                    200305
                                                                    30
PRIORITY APPLN. INFO.:                       US 2003-250045
                                                                    200305
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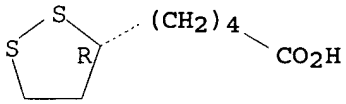
30

AB This invention relates to a novel ion-pair delivery system useful for gender and ethnic background selective hair care and nail care applications in which an electron donor composition and an electron acceptor composition, or a proton donor composition and a proton acceptor composition, or an anionic and a cationic composition, are combined synergistically. The bioavailability, deposition, functional performance, and consumer aesthetics of the compns. thus combined in such ion-pairs are enhanced synergistically. Hair care compns., such as shampoo, conditioner, hair lotion, hair oil, hair gel, hair sheen, hair rinse, hair balm, hair wax, hair spray, and such, and nail care compns., such as nail enamel, nail creams, nail serums, nail lacquers, nail spray, and nail polish, and such, can thus be obtained with synergistically enhanced performance. An example compound was cinnamidopropyltrimonium N-acetylcysteinate, prepared from cinnamidopropyltrimonium chloride and N-acetylcysteine.

IT **1200-22-2**, Lipoic acid **81859-24-7**, Polyquaternium 10
RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(hair care and nail care compns. based on ion-pair delivery system for gender and ethnic selective applications)

RN 1200-22-2 HCAPLUS
CN 1,2-Dithiolane-3-pentanoic acid, (3R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



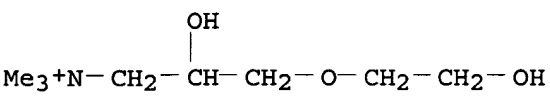
RN 81859-24-7 HCAPLUS
CN Cellulose, 2-hydroxyethyl 2-[2-hydroxy-3-(trimethylammonio)propoxy]ethyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (CA INDEX NAME)

CM 1

CRN 170553-71-6
CMF C8 H20 N O3 . x C6 H16 N O2 . x C2 H6 O2 . x Unspecified

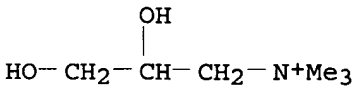
CM 2

CRN 170344-46-4
CMF C8 H20 N O3



CM 3

CRN 44814-66-6
CMF C6 H16 N O2



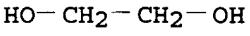
CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1
CMF C2 H6 O2

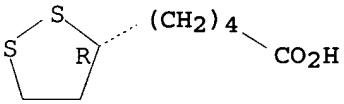


IT **800382-67-6P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hair care and nail care compns. based on ion-pair delivery system for gender and ethnic selective applications)
RN 800382-67-6 HCAPLUS
CN 3-Pyridinecarboxylic acid, (3R)-1,2-dithiolane-3-pentanoate (1:1) (9CI) (CA INDEX NAME)

CM 1

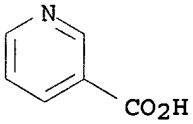
CRN 1200-22-2
CMF C8 H14 O2 S2

Absolute stereochemistry. Rotation (+).



CM 2

CRN 59-67-6
CMF C6 H5 N O2



IC ICM A61K007-04
ICS A61K007-06; A61K007-11
INCL 424061000; 424070140; 424074000
CC 62-3 (Essential Oils and Cosmetics)
IT Hair preparations
Ion pairs
**Polyelectrolytes**
Shampoos
(hair care and nail care compns. based on ion-pair delivery system for gender and ethnic selective applications)
IT 52-90-4, Cysteine, biological studies 52-90-4D, L-Cysteine, esters 56-87-1D, L-Lysine, esters 56-89-3, Cystine, biological studies 56-89-3D, Cystine, esters 57-00-1, Creatine 58-61-7, Adenosine, biological studies 58-85-5, Biotin 60-27-5, Creatinine 65-23-6, Pyridoxine 66-72-8, Pyridoxal 67-68-5, Dmso, biological studies 67-71-0, MSM 70-18-8, Glutathione, biological studies 71-30-7, Cytosine 74-79-3D, L-Arginine, esters 85-87-0, Pyridoxamine 93-60-7 94-44-0 97-59-6, Allantoin 98-92-0, Niacinamide 107-35-7, Taurine 112-02-7, Cetrimonium chloride 112-03-8, Quaternium 10 118-00-3, Guanosine, biological studies 122-19-0, Stearalkonium chloride 146-48-5, Yohimbine 305-84-0, Carnosine 616-91-1, N-Acetylcysteine **1200-22-2**, Lipoic acid 1617-90-9, Vincamine 1812-53-9, Dicetyldimonium chloride 3416-24-8, Glucosamine 3612-78-0 9007-27-6, Chondroitin 9012-76-4, Chitosan 14492-68-3, Quaternium 7 19213-70-8, N-Acetyltaurine 25779-79-7, N-Acetylcystine 26062-79-3, Polyquaternium 6 26590-05-6, Polyquaternium 7 27025-41-8, Oxidized glutathione 42971-09-5, Vinpocetine 53633-54-8, Polyquaternium 11 63451-27-4, Polyquaternium 2 75345-27-6, Polyquaternium 1 **81859-24-7**, Polyquaternium 10 92183-41-0, Polyquaternium 4 95144-24-4, Polyquaternium 16 150599-70-5, Polyquaternium 44 173833-36-8, Quaternium 82 174761-16-1, Polyquaternium 46 177190-98-6, Cinnamidopropyltrimonium chloride 463965-85-7, Behentrimonium methosulfate 719282-79-8, Polyquaternium 59 801297-48-3, Quaternium 79
RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(hair care and nail care compns. based on ion-pair delivery system for gender and ethnic selective applications)
IT 19542-74-6P, Sodium N-acetylcysteinate 34404-14-3P 800382-66-5P **800382-67-6P** 800382-68-7P 800382-69-8P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hair care and nail care compns. based on ion-pair delivery system for gender and ethnic selective applications)

L54 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:41634 HCAPLUS
DOCUMENT NUMBER: 136:107515
TITLE: Polymer formation in presence of nucleic acid using template polymerization
INVENTOR(S): Wolff, Jon A.; Hagstrom, James E.; Budker, Vladimir G.; Trubetskoy, Vladimir S.; Slattum, Paul M.; Hanson, Lisa J.
PATENT ASSIGNEE(S): Mirus Corp., USA
SOURCE: U.S., 26 pp., Cont.-in-part of U.S. Ser. No. 778,657.
CODEN: USXXAM

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 12
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 6339067 | B1 | 20020115 | US 1997-692 | 19971230 |
| US 6126964 | A | 20001003 | US 1997-778657 | 19970103 |
| US 2001024829 | A1 | 20010927 | US 2001-753990 | 20010102 |
| US 6383811 | B2 | 20020507 | | |
| US 2002165184 | A1 | 20021107 | US 2001-993216 | 20011116 |
| US 6706922 | B2 | 20040316 | | |
| US 2004161463 | A1 | 20040819 | US 2004-755785 | 20040112 |
| US 7022525 | B2 | 20060404 | | |
| US 2006024828 | A1 | 20060202 | US 2005-235000 | 20050926 |

| | | | |
|---|---|---|---|
| PRIORITY APPLN. INFO.: | US 1997-778657 | A2 | 19970103 |
| | US 1996-9593P | P | 19960104 |
| | US 1997-692 | A2 | 19971230 |
| | US 1999-174132P | P | 19991231 |
| | US 2001-993216 | A3 | 20011116 |
| | US 2004-755785 | A3 | 20040112 |

AB Polymers are formed in the presence of nucleic acid using template polymerization Also, polymerization occur in heterophase systems. These methods can be used for the delivery of nucleic acids, for condensing the nucleic acid, for forming nucleic acid binding polymers, for forming supramol. complexes containing nucleic acid and polymer, and for forming an interpolyelectrolyte complex. For example, step polymerization with DNA

as a template was performed using N,N'-bis(2-aminoethyl)-1,3-propanediamine and dithiobis(succinimidylpropionate). It was possible to obtain DNA-bound polyamide as a result of the polymerization and the resulting polymer can condense template DNA into compact structures.

IT **389132-33-6P**
RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymer formation in presence of nucleic acid using template polymerization)

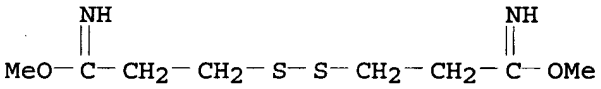
RN 389132-33-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with dimethyl 3,3'-dithiobis[propanimidate] and α,α',α'',α'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilio]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[ω-hydroxypoly(oxy-1,2-ethanediyl)] salt with trifluoroacetic acid (1:2), sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 389132-32-5
CMF (C8 H16 N2 O2 S2 . C4 H6 O2 . (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8 . 2 C2 F3 O2)x
CCI PMS

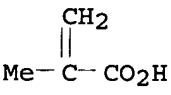
CM 2

CRN 59012-54-3
CMF C8 H16 N2 O2 S2



CM 3

CRN 79-41-4
CMF C4 H6 O2



CM 4

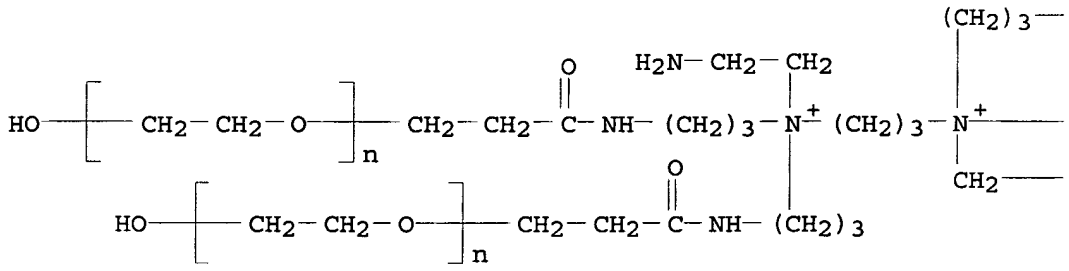
CRN 210292-30-1
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8 . 2 C2 F3 O2

CM 5

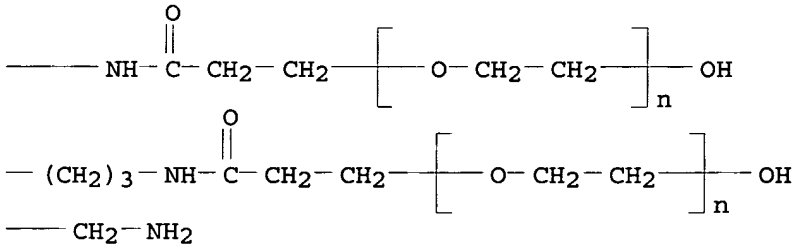
CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66

N8 O8
CCI PMS

PAGE 1-A

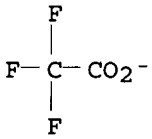


PAGE 1-B



CM 6

CRN 14477-72-6
CMF C2 F3 O2



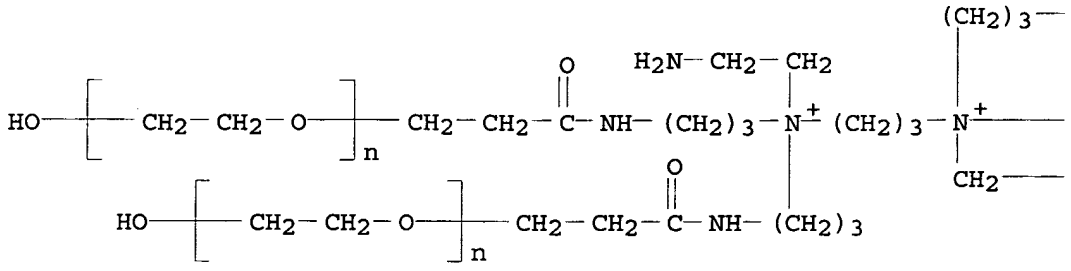
IT **210292-30-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polymer formation in presence of nucleic acid using template polymerization)
RN 210292-30-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α,α',α'',α'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilio]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[ω-hydroxy-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

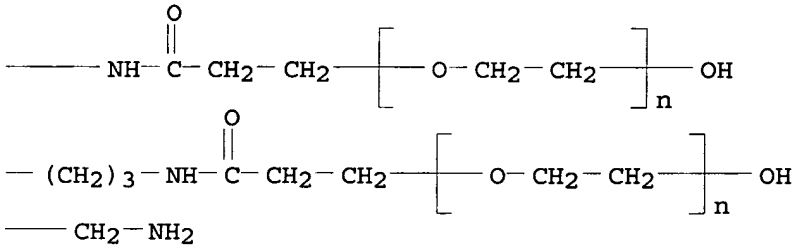
CRN 210292-29-8

CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

PAGE 1-A

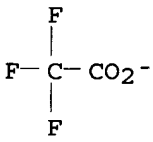


PAGE 1-B

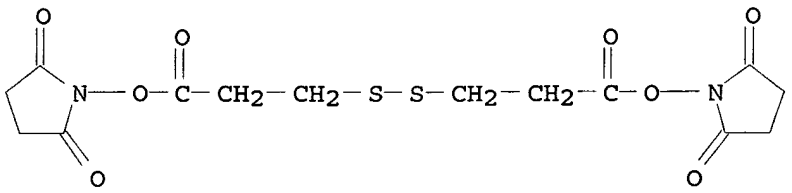


CM 2

CRN 14477-72-6
CMF C2 F3 O2



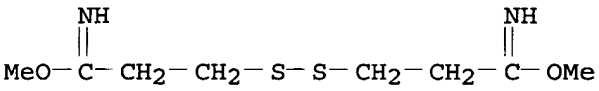
IT **57757-57-0DP**, crosslinked with NLS peptide and DPDPB
**389132-31-4P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymer formation in presence of nucleic acid using template polymerization)
RN 57757-57-0 HCAPLUS
CN Propanoic acid, 3,3'-dithiobis-, 1,1'-bis(2,5-dioxo-1-pyrrolidinyl) ester (CA INDEX NAME)



RN 389132-31-4 HCAPLUS
CN Propanimidic acid, 3,3'-dithiobis-, dimethyl ester, polymer with N,N'-bis(2-aminoethyl)-1,3-propanediamine and α,α',α'',α'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilio]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[ω-hydroxypoly(oxy-1,2-ethanediyl)] salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

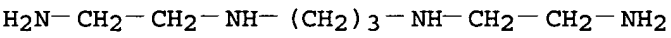
CM 1

CRN 59012-54-3
CMF C8 H16 N2 O2 S2



CM 2

CRN 4741-99-5
CMF C7 H20 N4



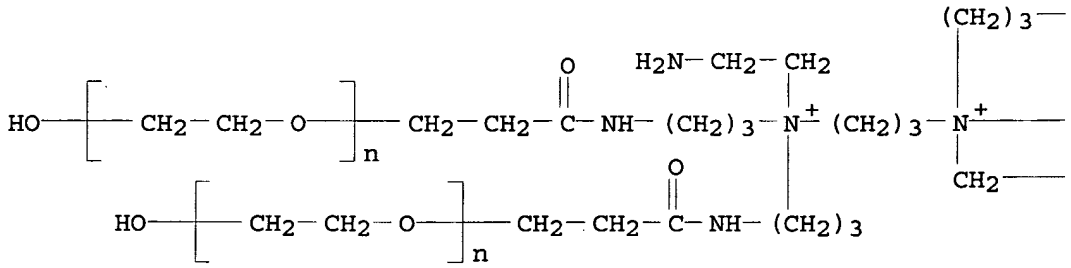
CM 3

CRN 210292-30-1
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8 . 2 C2 F3 O2

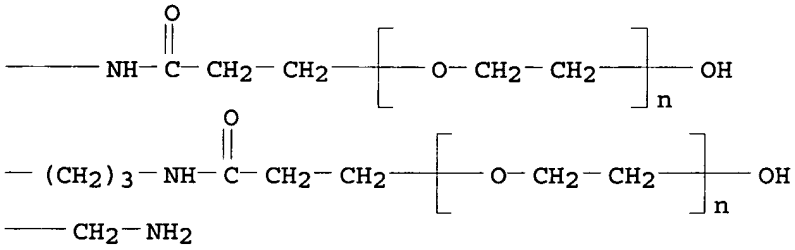
CM 4

CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

PAGE 1-A

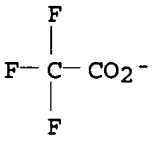


PAGE 1-B



CM 5

CRN 14477-72-6
CMF C2 F3 O2



IC ICM A61K048-00
INCL 514044000
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 9, 35
ST nucleic acid template polymn **polyelectrolyte**; DNA template polymn **polyelectrolyte**
IT Genetic vectors
**Polyelectrolytes**
Transformation, genetic
(polymer formation in presence of nucleic acid using template polymerization)
IT **389132-33-6P**
RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymer formation in presence of nucleic acid using template polymerization)

IT 51834-66-3P 109970-44-7P 136058-30-5P 210292-13-0P
210292-15-2P 210292-16-3P 210292-18-5P 210292-19-6P
210292-21-0P 210292-22-1P 210292-23-2P 210292-24-3P
210292-25-4P 210292-26-5P 210292-28-7P **210292-30-1P**
389132-27-8P 389132-28-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polymer formation in presence of nucleic acid using template polymerization)

IT 25232-42-2P, Poly(1-vinylimidazole) **57757-57-0DP**, crosslinked with NLS peptide and DPDPB 141647-62-3DP, DPDPB, crosslinked with NLS peptide and DSP 210292-07-2P 248915-94-8P
248915-97-1P 248915-98-2P 389132-29-0P 389132-30-3P
**389132-31-4P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymer formation in presence of nucleic acid using template polymerization)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L54 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:708870 HCAPLUS
DOCUMENT NUMBER: 131:327545
TITLE: Polymer formation in the presence of nucleic acid using template polymerization
INVENTOR(S): Wolff, Jon A.; Hagstrom, James E.; Budker, Vladimir G.
PATENT ASSIGNEE(S): Mirus Corporation, USA
SOURCE: PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9955825 | A1 | 19991104 | WO 1999-US8965 | 19990423 |
| W: JP | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| EP 1073707 | A1 | 20010207 | EP 1999-920014 | 19990423 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE; IE | | | | |

PRIORITY APPLN. INFO.: US 1998-70299 A 19980430
WO 1999-US8965 W 19990423

AB Polymers are formed in the presence of nucleic acid using template polymerization Also, polymerization occurs in heterophase systems. These methods

can be used for the delivery of nucleic acids, for condensing the nucleic acid, for forming nucleic acid binding polymers, for forming supramol. complexes containing nucleic acid and polymer, and for forming an interpolyelectrolyte complex. Step polymerization with DNA as a template was performed using N,N'-bis(2-aminoethyl)-1,3-propanediamine and dithiobis(succinimidylpropionate). It was possible to obtain DNA-bound polyamide as a result of the polymerization and the resulting polymer can condense template DNA into compact structures.

IT **210292-30-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polymer formation in the presence of nucleic acid using template polymerization)

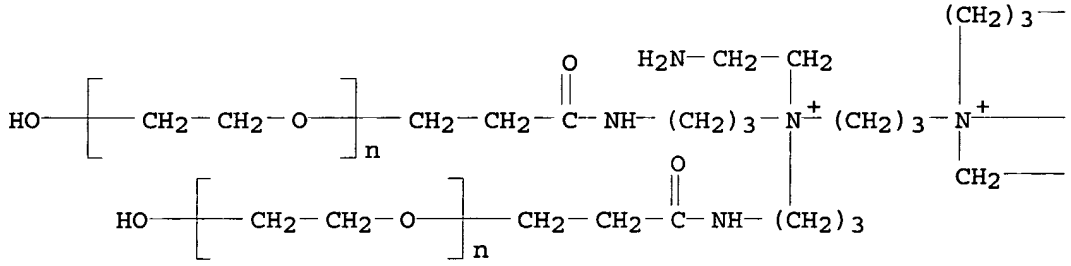
RN 210292-30-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α,α',α'',α'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilio]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[ω-hydroxy-, salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

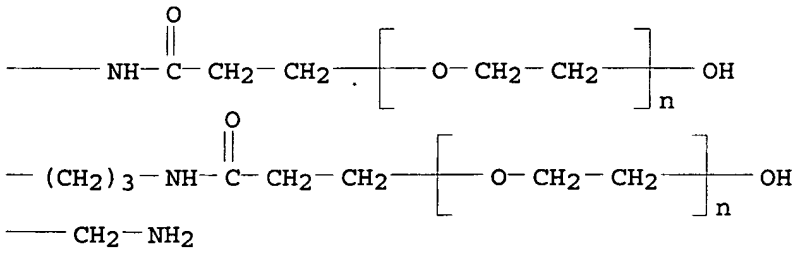
CM 1

CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

PAGE 1-A

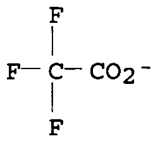


PAGE 1-B



CM 2

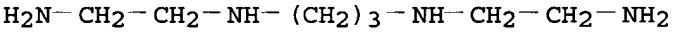
CRN 14477-72-6
CMF C2 F3 O2



IT **248915-96-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(polymer formation in the presence of nucleic acid using template polymerization)
RN 248915-96-0 HCAPLUS
CN 1,3-Propanediamine, N,N'-bis(2-aminoethyl)-, polymer with α,α',α'',α'''-[1,3-propanediylbis[[(2-aminoethyl)nitrilio]bis[3,1-propanediylimino(3-oxo-3,1-propanediyl)]]]tetrakis[ω-hydroxypoly(oxy-1,2-ethanediyl)] salt with trifluoroacetic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 4741-99-5
CMF C7 H20 N4



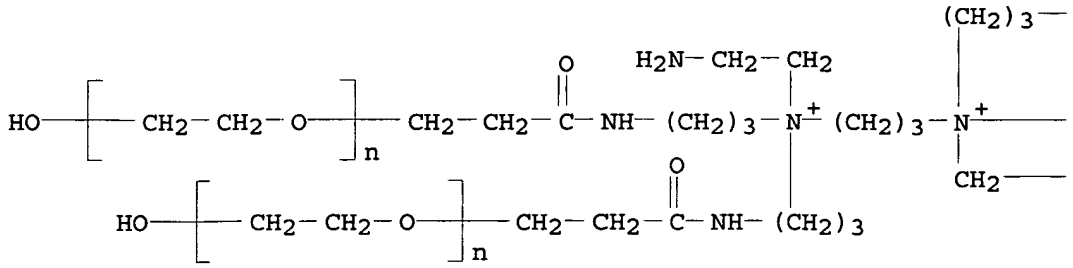
CM 2

CRN 210292-30-1
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8 . 2 C2 F3 O2

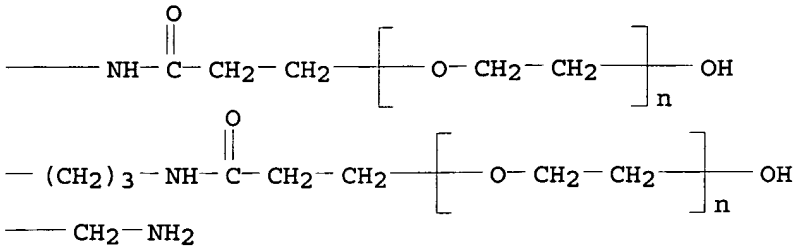
CM 3

CRN 210292-29-8
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C31 H66 N8 O8
CCI PMS

PAGE 1-A

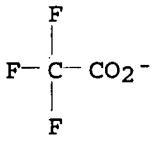


PAGE 1-B

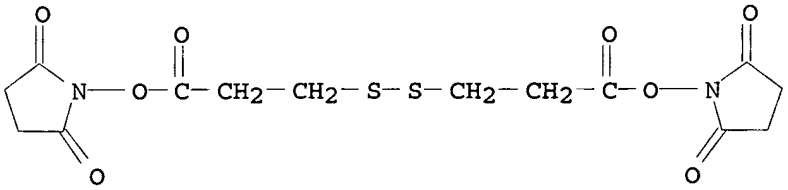


CM 4

CRN 14477-72-6
CMF C2 F3 O2



IT **57757-57-0DP**, crosslinked with NLS peptide and DPDPB
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymer formation in the presence of nucleic acid using template polymerization)
RN 57757-57-0 HCAPLUS
CN Propanoic acid, 3,3'-dithiobis-, 1,1'-bis(2,5-dioxo-1-pyrrolidinyl) ester (CA INDEX NAME)



IC ICM C12M001-14
ICS C12N011-00; C12N011-02; C12N011-16; C12Q001-04; C12Q001-70
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 35
ST DNA template polymn **polyelectrolyte**
IT Human adenovirus
Human herpesvirus
Parvovirus
**Polyelectrolytes**
Retroviridae
Sindbis virus
Transformation, genetic
(polymer formation in the presence of nucleic acid using template polymerization)

IT 51834-66-3P 109970-44-7P 136058-30-5P 205814-86-4P
210292-09-4P 210292-13-0P 210292-15-2P 210292-16-3P
210292-18-5P 210292-19-6P 210292-21-0P 210292-22-1P
210292-23-2P 210292-24-3P 210292-25-4P 210292-26-5P
210292-28-7P **210292-30-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polymer formation in the presence of nucleic acid using template polymerization)

IT 25104-18-1P, Poly(L-lysine) 38000-06-5P, Poly(L-lysine)
71550-12-4P, Polyallylamine hydrochloride **248915-96-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(polymer formation in the presence of nucleic acid using template polymerization)

IT 25232-42-2P, Poly(1-vinylimidazole) **57757-57-0DP**,
crosslinked with NLS peptide and DPDPB 141647-62-3DP, DPDPB,
crosslinked with NLS peptide and DSP 210292-07-2P 248915-94-8P
248915-95-9P 248915-97-1P 248915-98-2P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymer formation in the presence of nucleic acid using template polymerization)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L54 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:731481 HCAPLUS
DOCUMENT NUMBER: 128:39545
TITLE: Hydrophobically-modified bioadhesive **polyelectrolytes** and methods relating thereto
INVENTOR(S): Inoue, Tadaaki; Chen, Guohua; Hoffman, Allan S.
PATENT ASSIGNEE(S): University of Washington, USA
SOURCE: Jpn. Kokai Tokkyo Koho, 58 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 09286921 | A | 19971104 | JP 1995-254421 | 19950825 |
| US 5770627 | A | 19980623 | US 1995-515747 | 19950816 |
| PRIORITY APPLN. INFO.: | | | US 1995-515747 A | 19950816 |

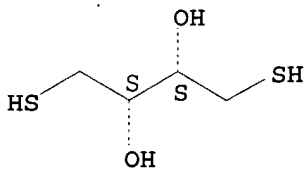
AB Hydrophobically-modified bioadhesive **polyelectrolytes** containing a bioadhesive **polyelectrolyte** and a hydrophobic component are disclosed. Also disclosed are **polyelectrolyte** -agent compns. wherein the hydrophobically-modified bioadhesive

**polyelectrolyte** is loaded with a pharmaceutically, cosmetically or prophylactically acceptable agent [ e.g. doxorubicin-HCl].

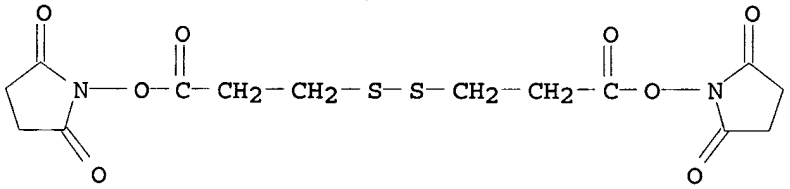
IT **3483-12-3**, DTT **57757-57-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)

RN 3483-12-3 HCAPLUS
CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 57757-57-0 HCAPLUS
CN Propanoic acid, 3,3'-dithiobis-, 1,1'-bis(2,5-dioxo-1-pyrrolidinyl) ester (CA INDEX NAME)

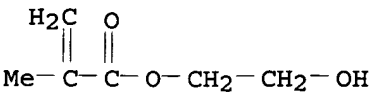


IT **26355-01-1DP**, Hydroxyethyl methacrylate-methyl methacrylate copolymer, amino-terminated **39921-94-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)

RN 26355-01-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with methyl 2-methyl-2-propenoate (CA INDEX NAME)

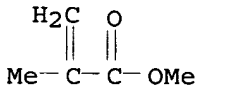
CM 1

CRN 868-77-9
CMF C6 H10 O3



CM 2

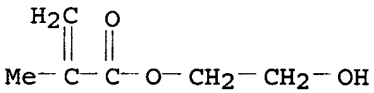
CRN 80-62-6
CMF C5 H8 O2



RN 39921-94-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

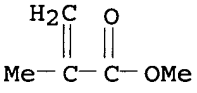
CM 1

CRN 868-77-9
CMF C6 H10 O3



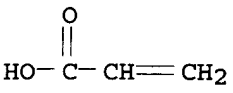
CM 2

CRN 80-62-6
CMF C5 H8 O2



CM 3

CRN 79-10-7
CMF C3 H4 O2



IC ICM C08L101-00
ICS A61K047-32; C08F008-00; C08J005-18; C08L051-00; C08L053-00; C08L067-02; C08L071-02; C08L075-04; C08L083-04; C08L101-08; C08F020-04
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 38, 62
ST hydrophobically modified bioadhesive **polyelectrolyte** pharmaceutical carrier; drug delivery system doxorubicin
IT Adhesives
(biol.; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)
IT Drug delivery systems
(carriers; hydrophobically-modified bioadhesive

**polyelectrolytes** as carriers for drugs or other products)

IT Drug delivery systems
(gels; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)

IT Dissolution rate
(hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)

IT Peptides, biological studies
Proteins, general, biological studies
RL: PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)

IT **Polyelectrolytes**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)

IT Drug delivery systems
(ointments; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)

IT Drug delivery systems
(oral; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)

IT Drug delivery systems
(powders; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)

IT Drug delivery systems
(solns.; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)

IT Drug delivery systems
(systemic; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)

IT Drug delivery systems
(topical; hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)

IT 58-55-9P, Theophylline, biological studies 318-98-9P, Propranolol hydrochloride 9001-63-2P, Lysozyme 25316-40-9P, Doxorubicin hydrochloride
RL: PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)

IT 78-67-1, Aibn **3483-12-3**, DTT **57757-57-0**
122159-53-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)

IT 9011-14-7DP, Poly(methyl methacrylate), amino-terminated
25322-25-2P, Acrylic acid-methyl methacrylate copolymer
**26355-01-1DP**, Hydroxyethyl methacrylate-methyl methacrylate copolymer, amino-terminated **39921-94-3P** 199606-95-6P
199606-97-8P 199606-99-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(hydrophobically-modified bioadhesive **polyelectrolytes** as carriers for drugs or other products)

=>